



**NASA SP-7039(26)**  
**Section 2**  
**Indexes**

(NASA-Sp-7039 (26)) NASA PATENT ABSTRACTS  
BIBLIOGRAPHY. A CONTINUING BIBLIOGRAPHY.  
SECTION 2: INDEXES (National Aeronautics  
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Unclas

CSCI 05B 00/82 17053

# **NASA**

# **PATENT**

# **ABSTRACTS**

# **BIBLIOGRAPHY**

**A CONTINUING BIBLIOGRAPHY**

**Section 2 • Indexes**

**JANUARY 1985**

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**



## ACCESSION NUMBER RANGES

<i>Bibliography Number</i>	<i>STAR Accession Numbers</i>
NASA SP-7039(04)	N69-20701 – N73-33931
NASA SP-7039(12)	N74-10001 – N77-34042
NASA SP-7039(13)	N78-10001 – N78-22018
NASA SP-7039(14)	N78-22019 – N78-34034
NASA SP-7039(15)	N79-10001 – N79-21993
NASA SP-7039(16)	N79-21994 – N79-34158
NASA SP-7039(17)	N80-10001 – N80-22254
NASA SP-7039(18)	N80-22255 – N80-34339
NASA SP-7039(19)	N81-10001 – N81-21997
NASA SP-7039(20)	N81-21998 – N81-34139
NASA SP-7039(21)	N82-10001 – N82-22140
NASA SP-7039(22)	N82-22141 – N82-34341
NASA SP-7039(23)	N83-10001 – N83-23266
NASA SP-7039(24)	N83-23267 – N83-37053
NASA SP-7039(25)	N84-10001 – N84-22526
NASA SP-7039(26)	N84-22527 – N84-35284



**NASA**

**PATENT  
ABSTRACTS  
BIBLIOGRAPHY**

**A CONTINUING BIBLIOGRAPHY**

**Section 2 • Indexes**

Indexes for the annotated references to NASA-owned inventions covered by U.S. patents and applications for patent that were announced in *Scientific and Technical Aerospace Reports (STAR)* between May 1969 and December 1984. This issue supersedes all previous Index Sections.



This supplement is available as NTISUB/111/093 from the National Technical Information Service (NTIS), Springfield, Virginia 22161 at the price of \$20.00 domestic; \$40.00 foreign for standing orders. Please note: Standing orders are subscriptions which do not terminate at the end of a year, as do regular subscriptions, but continue indefinitely unless specifically terminated by the subscriber.



# INTRODUCTION

Several thousand inventions result each year from the aeronautical and space research supported by the National Aeronautics and Space Administration. The inventions having important use in government programs or significant commercial potential are usually patented by NASA. These inventions cover practically all fields of technology and include many that have useful and valuable commercial application.

NASA inventions best serve the interests of the United States when their benefits are available to the public. In many instances, the granting of nonexclusive or exclusive licenses for the practice of these inventions may assist in the accomplishment of this objective. This bibliography is published as a service to companies, firms, and individuals seeking new, licensable products for the commercial market.

The *NASA Patent Abstracts Bibliography (NASA PAB)* is a semiannual NASA publication containing comprehensive abstracts and indexes of NASA-owned inventions covered by U.S. patents and applications for patent. The citations included in *NASA PAB* were originally published in NASA's *Scientific and Technical Aerospace Reports (STAR)* and cover *STAR* announcements made since May 1969.

For the convenience of the user, each issue of *NASA PAB* has a separately bound Abstract Section (Section 1) and Index Section (Section 2). Although each Abstract Section covers only the indicated six-month period, the Index Section is cumulative covering all NASA-owned inventions announced in *STAR* since 1969. Thus a complete set of *NASA PAB* would consist of the Abstract Sections of Issue 04 (January 1974) and Issue 12 (January 1978) and the Abstract Section for all subsequent issues and the Index Section for the most recent issue.

The 172 citations published in this issue of the Abstract Section cover the period July 1984 through December 1984. The Index Section references over 4300 citations covering the period May 1969 through December 1984.

## ABSTRACT SECTION (SECTION 1)

This *PAB* issue incorporates the 1975 *STAR* category revisions which include 10 major subdivisions divided into 74 specific categories and one general category/division. (See Table of Contents for the scope note of each category under which are grouped appropriate NASA inventions.) This new scheme was devised in lieu of the 34 category divisions which were utilized in *PAB* supplements (01) through (06) covering *STAR* abstracts from May 1969 through January 1974. Each entry in the Abstract Section consists of a *STAR* citation accompanied by an abstract and a key illustration taken from the patent or application for patent drawing. Entries are arranged in subject category in order of the ascending NASA Accession Number originally assigned in *STAR* to the invention. The range of NASA Accession Numbers within each issue is printed on the inside front cover.

**Abstract Citation Data Elements:** Each of the abstract citations has several data elements useful for identification and indexing purposes, as follows:

NASA Accession Number

NASA Case Number

Inventor's Name

Title of Invention

U.S. Patent Application Serial Number

U.S. Patent Number (for issued patents only)

U.S. Patent Office Classification Number(s)  
(for issued patents only)

These data elements in the citation of the abstract are depicted in the Typical Citation and Abstract reproduced on the following page and are also used in the indexes.



# TYPICAL CITATION AND ABSTRACT

**NASA SPONSORED DOCUMENT** → **N84-20782** # National Aeronautics and Space Administration.  
Lewis Research Center, Cleveland, Ohio. → **AVAILABLE ON MICROFICHE**

**NASA ACCESSION NUMBER** → **VORTEX GENERATING FLOW PASSAGE DESIGN FOR INCREASED FILM COOLING EFFECTIVENESS** Patent → **SOURCE**

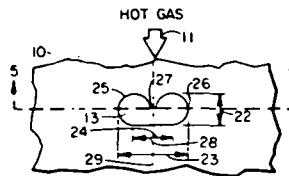
**TITLE** → **Application**

**INVENTOR** → **S. S. PAPELL, inventor (to NASA) 15 Feb. 1984 15 p** → **US PATENT APPLICATIONS SERIAL NUMBER**

**NASA CASE NUMBER** → **(NASA-CASE-LEW-14039-1; US-PATENT-APPL-SN-580419)**

**AVAILABILITY** → **Avail: NTIS HC A02/MF A01 CSCL 20D** → **COSATI CODE**

**ABSTRACT** → **A cooling fluid is injected into a hot flowing gas through a passageway in a wall which contains and is subject to the hot gas. The passageway is slanted in a downstream direction at an acute angle to the wall. A cusp shape is provided in the passageway to generate vortices in the injected cooling fluid thereby reducing the energy extracted from the hot gas for that purpose. The cusp shape increases both film cooling effectiveness and wall area coverage. The cusp may be at either the downstream or upstream side of the passageway, the former substantially eliminating flow separation of the cooling fluid from the wall immediately downstream of the passageway.** NASA



**KEY ILLUSTRATION**



## INDEX SECTION (SECTION 2)

The Index Section is divided into five indexes which are cross-indexed and are useful in locating a single invention or groups of inventions.

Each of the five indexes utilizes basic data elements: (1) Subject Category Number, (2) NASA Accession Number, and (3) NASA Case Number, in addition to other specific index terms.

**Subject Index:** Lists all inventions according to appropriate alphabetized technical term and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

**Inventor Index:** Lists all inventions according to alphabetized names of inventors and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

**Source Index:** Lists all inventions according to alphabetized source of invention (i.e., name of contractor or government installation where invention was made) and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

**Number Index:** Lists inventions in order of ascending (1) NASA Case Number, (2) U.S. Patent Application Serial Number, (3) U.S. Patent Classification Number, and (4) U.S. Patent Number and indicates the related Subject Category Number and the NASA Accession Number.

**Accession Number Index:** Lists all inventions in order of ascending NASA Accession Number and indicates the related Subject Category Number, the NASA Case Number, the U.S. Patent Application Serial Number, the U.S. Patent Classification Number, and the U.S. Patent Number.

## HOW TO USE THIS PUBLICATION TO IDENTIFY NASA INVENTIONS

To identify one or more NASA inventions within a specific technical field or subject, several techniques are possible when using the flexibility incorporated into the *NASA PAB*.

(1) *Using Subject Category:* To identify all NASA inventions in any one of the subject categories in this issue of *NASA PAB*, select the desired Subject Category in the Abstract Section (Section 1) and find the inventions abstracted thereunder.

(2) *Using Subject Index:* To identify all NASA inventions listed under a desired technical subject index term, (A) turn to the cumulative Subject Index in the Index Section and find the invention(s) listed under the desired technical subject term. (B) Note the indicated Accession Number and the Subject Category Number. (C) Using the indicated Accession Number, turn to the inside front cover of the Index Section to determine which issue of the Abstract Section includes the Accession Number desired. (D) To find the abstract of the particular invention in the issue of the Abstract Section selected, (i) use the Subject Category Number to locate the Subject Category and (ii) use the Accession Number to locate the desired invention within the Subject Category listing.

(3) *Using Patent Classification Index:* To identify all inventions covered by issued NASA patents (does not include applications for patent) within a desired Patent Classification, (A) turn to the Patent Classification Number in the Number Index of Section 2 and find the associated invention(s), and (B) follow the instructions outlined in (2)(B), and (D) above.

## **PUBLIC AVAILABILITY OF COPIES OF PATENTS AND PATENT APPLICATIONS**

Copies of U.S. patents may be purchased directly from the U.S. Patent and Trademark Office, Washington, D.C. 20231, for fifty cents a copy. When ordering patents, the U.S. Patent Number should be used, and payment must be remitted in advance, preferably by money order or check payable to the Commissioner of Patents and Trademarks. Prepaid purchase coupons for ordering are also available from the Patent and Trademark Office.

*NASA patent application specifications* are sold in paper copy by the National Technical Information Service at price code A02 (\$7.00 domestic; \$14.00 foreign). Microfiche are sold at price code A01 (\$4.50 domestic; \$9.00 foreign). The US-Patent-Appl-SN-number should be used in ordering either paper copy or microfiche from NTIS.

## **LICENSES FOR COMMERCIAL USE: INQUIRIES AND APPLICATIONS FOR LICENSE**

NASA inventions, abstracted in *NASA PAB*, are available for nonexclusive or exclusive licensing in accordance with the NASA Patent Licensing Regulations. It is significant that all licenses for NASA inventions shall be by express written instruments and that no license will be granted or implied in a NASA invention except as provided in the NASA Patent Licensing Regulations.

Inquiries concerning the NASA Patent Licensing Program or the availability of licenses for the commercial use of NASA-owned inventions covered by U.S. patents or pending applications for patent should be forwarded to the NASA Patent Counsel of the NASA installation having cognizance of the specific invention, or the Assistant General Counsel for Patent Matters, Code GP-4, National Aeronautics and Space Administration, Washington, D.C. 20546. Inquiries should refer to the NASA Case Number, the Title of the Invention, and the U.S. Patent Number or the U.S. Application Serial Number assigned to the invention as shown in *NASA PAB*.

The NASA Patent Counsel having cognizance of the invention is determined by the first three letters or prefix of the NASA Case Number assigned to the invention. The addresses of NASA Patent Counsels are listed alongside the NASA Case Number prefix letters in the following table. Formal application of license must be submitted on the NASA Form, Application for NASA Patent License, which is available upon request from any NASA Patent Counsel.



## **PUBLIC COLLECTIONS OF NASA DOCUMENTS**

**DOMESTIC:** NASA and NASA-sponsored documents and a large number of aerospace publications are available to the public for reference purposes at the library maintained by the American Institute of Aeronautics and Astronautics, Technical Information Service, 555 West 57th Street, 12th Floor, New York, New York 10019.

**EUROPEAN:** An extensive collection of NASA and NASA-sponsored publications is maintained by the British Library Lending Division, Boston Spa, Wetherby, Yorkshire, England for public access. The British Library Lending Division also has available many of the non-NASA publications cited in *Star*. European requesters may purchase facsimile copy or microfiche of NASA and NASA-sponsored documents, those identified by both the symbols # and \* from ESA - Information Retrieval Service European Space Agency, 8-10 rue Mario-Nikis, 75738 Paris CEDEX 15, France.

## **FEDERAL DEPOSITORY LIBRARY PROGRAM**

In order to provide the general public with greater access to U.S. Government publications, Congress established the Federal Depository Library Program under the Government Printing Office (GPO), with 50 regional depositories responsible for permanent retention of material, inter-library loan, and reference services. Over 1,300 other depositories also exist. A list of the regional GPO libraries appears on the inside back cover.

**NASA Case  
Number  
Prefix Letters**

**Address of Cognizant  
NASA Patent Counsel**

ARC-xxxxx  
XAR-xxxxx

Ames Research Center  
Mail Code: 200-11A  
Moffett Field, California 94035  
Telephone: (415)965-5104

ERC-xxxxx  
XER-xxxxx  
HQN-xxxxx  
XHQ-xxxxx

NASA Headquarters  
Mail Code: GP-4  
Washington, D.C. 20546  
Telephone: (202)755-3954

GSC-xxxxx  
XGS-xxxxx

Goddard Space Flight Center  
Mail Code: 204  
Greenbelt, Maryland 20771  
Telephone: (301)344-7351

KSC-xxxxx  
XKS-xxxxx

John F. Kennedy Space Center  
Mail Code: PT-PAT  
Kennedy Space Center, Florida 32899  
Telephone: (305)867-2544

LAR-xxxxx  
XLA-xxxxx

Langley Research Center  
Mail Code: 279  
Hampton, Virginia 23365  
Telephone: (804)827-8725

LEW-xxxxx  
XLE-xxxxx

Lewis Research Center  
Mail Code: 500-318  
21000 Brookpark Road  
Cleveland, Ohio 44135  
Telephone: (216)433-6346

MSC-xxxxx  
XMS-xxxxx

Lyndon B. Johnson Space Center  
Mail Code: AL3  
Houston, Texas 77058  
Telephone: (713)483-4871

MFS-xxxxx  
XMF-xxxxx

George C. Marshall Space Flight Center  
Mail Code: CC01  
Huntsville, Alabama 35812  
Telephone: (205)453-0020

NPO-xxxxx  
XNP-xxxxx  
FRC-xxxxx  
XFR-xxxxx  
WOO-xxxxx

NASA Resident Legal Office  
Mail Code: 180-801  
4800 Oak Grove Drive  
Pasadena, California 91103  
Telephone: (213)354-2700



# PATENT LICENSING REGULATIONS

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

### 14 CFR Part 1245

#### Licensing of NASA Inventions

**AGENCY:** National Aeronautics and Space Administration.

**ACTION:** Interim regulation with comments requested.

**SUMMARY:** The National Aeronautics and Space Administration (NASA) is revising its patent licensing regulations to conform with Pub. L. 96-517. This interim regulation provides policies and procedures applicable to the licensing of federally owned inventions in the custody of the National Aeronautics and Space Administration, and implements Pub. L. 96-517. The object of this subpart is to use the patent system to promote the utilization of inventions arising from NASA supported research and development.

**EFFECTIVE DATE:** July 1, 1981. Comments must be received in writing by December 2, 1981. Unless a notice is published in the *Federal Register* after the comment period indicating changes to be made, this interim regulation shall become a final regulation.

**ADDRESS:** Mr. John G. Mannix, Director of Patent Licensing, GP-4, NASA, Washington, D.C. 20546

**FOR FURTHER INFORMATION CONTACT:** Mr. John G. Mannix, (202) 755-3954

#### SUPPLEMENTARY INFORMATION:

#### PART 1245—PATENTS AND OTHER INTELLECTUAL PROPERTY RIGHTS

Subpart 2 of Part 1245 is revised to read as follows:

#### Subpart 2—Licensing of NASA Inventions

- Sec.
- 1245.200 Scope of subpart
  - 1245.201 Policy and objective
  - 1245.202 Definitions
  - 1245.203 Authority to grant licenses

#### Restrictions and Conditions

- 1245.204 All licenses granted under this subpart

#### Types of Licenses

- 1245.205 Nonexclusive licenses.
- 1245.206 Exclusive and partially exclusive licenses

#### Procedures

- 1245.207 Application for a license
- 1245.208 Processing applications
- 1245.209 Notice to Attorney General
- 1245.210 Modification and termination of licenses
- 1245.211 Appeals.
- 1245.212 Protection and administration of inventions.

- 1245.213 Transfer of custody
- 1245.214 Confidentiality of information.

Authority: 35 U.S.C. Section 207 and 208, 94 Stat. 3023 and 3024

#### Subpart 2—Licensing of NASA Inventions

##### § 1245.200 Scope of subpart.

This subpart prescribes the terms, conditions, and procedures upon which a NASA invention may be licensed. It does not affect licenses which (a) were in effect prior to July 1, 1981; (b) may exist at the time of the Government's acquisition of title to the invention, including those resulting from the allocation of rights to inventions made under Government research and development contracts; (c) are the result of an authorized exchange of rights in the settlement of patent disputes; or (d) are otherwise authorized by law or treaty.

##### § 1245.201 Policy and objective.

It is the policy and objective of this subpart to use the patent system to promote the utilization of inventions arising from NASA supported research and development.

##### § 1245.202 Definitions.

(a) "Federally owned invention" means an invention, plant, or design which is covered by a patent or patent application in the United States or a patent, patent application, plant variety protection, or other form of protection, in a foreign country, title to which has been assigned to or otherwise vested in the United States Government.

(b) "Federal agency" means an executive department, military department, Government corporation, or independent establishment, except the Tennessee Valley Authority, which has custody of a Federally owned invention.

(c) "NASA Invention" means a Federally owned invention with respect to which NASA maintains custody and administration, in whole or in part, of the right, title, or interest in such invention on behalf of the United States Government.

(d) "Small business firm" means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of these regulations, the size standard for small business concerns involved in Government procurement, contained in 13 CFR 121.4-8, and in subcontracting, contained in 13 CFR 121.3-12, will be used.

(e) "Practical application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to

operate in the case of a machine or system, and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms.

(f) "United States" means the United States of America, its territories and possessions, the District of Columbia, and the Commonwealth of Puerto Rico.

##### § 1245.203 Authority to grant licenses.

NASA inventions shall be made available for licensing as deemed appropriate in the public interest. NASA may grant nonexclusive, partially exclusive, or exclusive licenses thereto under this subpart on inventions in its custody.

#### Restrictions and Conditions

##### § 1245.204 All licenses granted under this subpart.

(a) *Restrictions.* (1) A license may be granted only if the applicant has supplied NASA with a satisfactory plan for development or marketing of the invention, or both, and with information about the applicant's capability to fulfill the plan.

(2) A license granting rights to use or sell under a NASA invention in the United States shall normally be granted only to a licensee who agrees that any products embodying the invention or produced through the use of the invention will be manufactured substantially in the United States.

(b) *Conditions.* Licenses shall contain such terms and conditions as NASA determines are appropriate for the protection of the interests of the Federal Government and the public and are not in conflict with law or this subpart. The following terms and conditions apply to any license:

(1) The duration of the license shall be for a period specified in the license agreement, unless sooner terminated in accordance with this subpart.

(2) The license may be granted for all or less than all fields of use of the invention or in specified geographical areas, or both.

(3) The license may extend to subsidiaries of the licensee or other parties if provided for in the license but shall be nonassignable without approval of NASA, except to the successor of that part of the licensee's business to which the invention pertains.

(4) The license may provide the licensee the right to grant sublicenses under the license, subject to the approval of NASA. Each sublicense shall make reference to the license, including the rights retained by the Government, and a copy of such

## PATENT LICENSING REGULATIONS

sublicense shall be furnished to NASA.

(5) The license shall require the licensee to carry out the plan for development or marketing of the invention, or both, to bring the invention to practical application within a period specified in the license, and to continue to make the benefits of the invention reasonably accessible to the public.

(6) The license shall require the licensee to report periodically on the utilization or efforts at obtaining utilization that are being made by the licensee, with particular reference to the plan submitted.

(7) All licenses shall normally require royalties or other consideration.

(8) Where an agreement is obtained pursuant to § 1245.204(a)(2) that any products embodying the invention or produced through use of the invention will be manufactured substantially in the United States, the license shall recite such agreement.

(9) The license shall provide for the right of NASA to terminate the license, in whole or in part, if:

(i) NASA determines that the licensee is not executing the plan submitted with its request for a license and the licensee cannot otherwise demonstrate to the satisfaction of NASA that it has taken or can be expected to take within a reasonable time effective steps to achieve practical application of the invention;

(ii) NASA determines that such action is necessary to meet requirements for public use specified by Federal regulations issued after the date of the license and such requirements are not reasonably satisfied by the licensee;

(iii) The licensee has willfully made a false statement of or willfully omitted a material fact in the license application or in any report required by the license agreement; or

(iv) The licensee commits a substantial breach of a covenant or agreement contained in the license.

(10) The license may be modified or terminated, consistent with this subpart, upon mutual agreement of NASA and the licensee.

(11) Nothing relating to the grant of a license, nor the grant itself, shall be construed to confer upon any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to this subpart shall not be immunized from the operation of state or Federal law by reason of the source of the grant.

### Types of Licenses

#### § 1245.205 Nonexclusive licenses.

(a) *Availability of licenses.* Nonexclusive licenses may be granted under NASA inventions without publication of availability or notice of a prospective license.

(b) *Conditions.* In addition to the provisions of § 1245.204, the nonexclusive license may also provide that, after termination of a period specified in the license agreement, NASA may restrict the license to the fields of use or geographic areas, or both, in which the licensee has brought the invention to practical application and continues to make the benefits of the invention reasonably accessible to the public. However, such restriction shall be made only in order to grant an exclusive or partially exclusive license in accordance with this subpart.

#### § 1245.206 Exclusive and partially exclusive licenses.

(a) *Domestic licenses.*

(1) *Availability of licenses.* Exclusive or partially exclusive licenses may be granted on NASA inventions: (i) 3 months after notice of the invention's availability has been announced in the *Federal Register*; or (ii) without such notice where NASA determines that expeditious granting of such a license will best serve the interests of the Federal Government and the public; and (iii) in either situation, specified in (a)(1)(i) or (ii) of this section only if:

(A) Notice of a prospective license, identifying the invention and the prospective licensee, has been published in the *Federal Register*, providing opportunity for filing written objections within a 60-day period;

(B) After expiration of the period in § 1245.206(a) (1)(iii)(A) and consideration of any written objections received during the period, NASA has determined that:

(1) The interests of the Federal Government and the public will best be served by the proposed license, in view of the applicant's intentions, plans, and ability to bring the invention to practical application or otherwise promote the invention's utilization by the public;

(2) The desired practical application has not been achieved, or is not likely expeditiously to be achieved, under any nonexclusive license which has been granted, or which may be granted, on the invention;

(3) Exclusive or partially exclusive licensing is a reasonable and necessary incentive to call forth the investment of risk capital and expenditures to bring the invention to practical application or

otherwise promote the invention's utilization by the public; and

(4) The proposed terms and scope of exclusivity are not greater than reasonably necessary to provide the incentive for bringing the invention to practical application or otherwise promote the invention's utilization by the public;

(C) NASA has not determined that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the country in any line of commerce to which the technology to be licensed relates, or to create or maintain other situations inconsistent with the antitrust laws; and

(D) NASA has given first preference to any small business firms submitting plans that are determined by the agency to be within the capabilities of the firms and as equally likely, if executed, to bring the invention to practical application as any plans submitted by applicants that are not small business firms.

(2) *Conditions.* In addition to the provisions of § 1245.204, the following terms and conditions apply to domestic exclusive and partially exclusive licenses:

(i) The license shall be subject to the irrevocable, royalty-free right of the Government of the United States to practice and have practiced the invention on behalf of the United States and on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement with the United States.

(ii) The license shall reserve to NASA the right to require the licensee to grant sublicenses to responsible applicants, on reasonable terms, when necessary to fulfill health or safety needs.

(iii) The license shall be subject to any licenses in force at the time of the grant of the exclusive or partially exclusive license.

(iv) The license may grant the licensee the right of enforcement of the licensed patent pursuant to the provisions of Chapter 29 of Title 35, United States Code, or other statutes, as determined appropriate in the public interest.

(b) *Foreign licenses.*

(1) *Availability of licenses.* Exclusive or partially exclusive licenses may be granted on a NASA invention covered by a foreign patent, patent application, or other form of protection, provided that:

(i) Notice of a prospective license, identifying the invention and prospective licensee, has been published in the *Federal Register*, providing opportunity for filing written objections

## PATENT LICENSING REGULATIONS

within a 60-day period and following consideration of such objections;

(ii) NASA has considered whether the interests of the Federal Government or United States industry in foreign commerce will be enhanced; and

(iii) NASA has not determined that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the United States in any line of commerce to which the technology to be licensed relates, or to create or maintain other situations inconsistent with antitrust laws.

(2) *Conditions.* In addition to the provisions of § 1245.204, the following terms and conditions apply to foreign exclusive and partially exclusive licenses:

(i) The license shall be subject to the irrevocable, royalty-free right of the Government of the United States to practice and have practiced the invention on behalf of the United States and on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement with the United States.

(ii) The license shall be subject to any licenses in force at the time of the grant of the exclusive or partially exclusive license.

(iii) The license may grant the licensee the right to take any suitable and necessary actions to protect the licensed property, on behalf of the Federal Government.

(c) *Record of determinations.* NASA shall maintain a record of determinations to grant exclusive or partially exclusive licenses.

### Procedures

#### § 1245.207 Application for a license.

An application for a license should be addressed to the Patent Counsel at the NASA installation having responsibility for the invention and shall normally include:

(a) Identification of the invention for which the license is desired, including the patent-application serial number or patent number, title, and date, if known;

(b) Identification of the type of license for which the application is submitted;

(c) Name and address of the person, company, or organization applying for the license and the citizenship or place of incorporation of the applicant;

(d) Name, address, and telephone number of representative of applicant to whom correspondence should be sent;

(e) Nature and type of applicant's business, identifying products or services which the applicant has successfully commercialized, and

approximate number of applicant's employees;

(f) Source of information concerning the availability of a license on the invention;

(g) A statement indicating whether applicant is a small business firm as defined in § 1245.202(c);

(h) A detailed description of applicant's plan for development or marketing of the invention, or both, which should include:

(1) A statement of the time, nature and amount of anticipated investment of capital and other resources which applicant believes will be required to bring the invention to practical application;

(2) A statement as to applicant's capability and intention to fulfill the plan, including information regarding manufacturing, marketing, financial, and technical resources;

(3) A statement of the fields of use for which applicant intends to practice the invention; and

(4) A statement of the geographic areas in which applicant intends to manufacture any products embodying the invention and geographic areas where applicant intends to use or sell the invention, or both;

(i) Identification of licenses previously granted to applicant under Federally owned inventions;

(j) A statement containing applicant's best knowledge of the extent to which the invention is being practiced by private industry or Government, or both, or is otherwise available commercially; and

(k) Any other information which applicant believes will support a determination to grant the license to applicant.

#### § 1245.208 Processing applications.

(a) Applications for licenses will be initially reviewed by the Patent Counsel of the NASA installation having responsibility for the invention. The Patent Counsel shall make a preliminary recommendation to the Director of Licensing, NASA Headquarters, whether to: (1) grant the license as requested, (2) grant the license with modification after negotiation with the licensee, or (3) deny the license. The Director of Licensing shall review the preliminary recommendation of the Patent Counsel and make a final recommendation to the NASA Assistant General Counsel for Patent Matters. Such review and final recommendation may include, and be based on, any additional information obtained from applicant and other sources that the Patent Counsel and the Director of Licensing deem relevant to

the license requested. The determination to grant or deny the license shall be made by the Assistant General Counsel for Patent Matters based on the final recommendation of the Director of Licensing.

(b) When notice of a prospective exclusive or partially exclusive license is published in the Federal Register in accordance with § 1245.206(a)(1)(iii)(A) or § 1245.206(b)(1)(i), any written objections received in response thereto will be considered by the Director of Licensing in making the final recommendation to the Assistant General Counsel for Patent Matters.

(c) If the requested license, including any negotiated modifications, is denied by the Assistant General Counsel for Patent Matters, the applicant may request reconsideration by filing a written request for reconsideration within 30 days after receiving notice of denial. This 30-day period may be extended for good cause.

(d) In addition to, or in lieu of requesting reconsideration, the applicant may also appeal the denial of the license in accordance with § 1245.211.

#### § 1245.209 Notice to Attorney General.

A copy of the notice provided for in §§ 1245.206(a)(1)(iii)(A), and 1245.206(b)(1)(i) will be sent to the Attorney General.

#### § 1245.210 Modification and termination of licenses.

Before modifying or terminating a license, other than by mutual agreement, NASA shall furnish the licensee and any sublicensee of record a written notice of intention to modify or terminate the license, and the licensee and any sublicensee shall be allowed 30 days after such notice to remedy any breach of the license or show cause why the license should not be modified or terminated.

#### § 1245.211 Appeals.

(a) The following parties may appeal to the NASA Administrator or designee any decision or determination concerning the grant, denial, interpretation, modification, or termination of a license:

(1) A person whose application for a license has been denied;

(2) A licensee whose license has been modified or terminated, in whole or in part; or

(3) A person who timely filed a written objection in response to the notice required by

§§ 1245.208(a)(1)(iii)(A) or



## PATENT LICENSING REGULATIONS

1245.206(b)(1)(i) and who can demonstrate to the satisfaction of NASA that such person may be damaged by the Agency action.

(b) Written notice of appeal must be filed within 30 days (or such other time as may be authorized for good cause shown) after receiving notice of the adverse decision or determination; including, an adverse decision following the request for reconsideration under § 1245.208(c). The notice of appeal, along with all supporting documentation should be addressed to the Administrator, National Aeronautics and Space Administration, Washington, DC 20546. Should the appeal raise a genuine dispute over material facts, fact-finding will be conducted by the NASA Inventions and Contributions Board. The person filing the appeal shall be

afforded an opportunity to be heard and to offer evidence in support of the appeal. The Chairperson of the Inventions and Contributions Board shall prepare written findings of fact and transmit them to the Administrator or designee. The decision on the appeal shall be made by the NASA Administrator or designee. There is no further right of administrative appeal from the decision of the Administrator or designee.

### § 1245.212 Protection and administration of inventions.

NASA may take any suitable and necessary steps to protect and administer rights to NASA inventions, either directly or through contract.

### § 1245.213 Transfer of custody.

NASA having custody of certain Federally owned inventions may transfer custody and administration in whole or in part, to another Federal agency, of the right, title, or interest in any such invention.

### § 1245.214 Confidentiality of information.

Title 35, United States Code, section 209, provides that any plan submitted pursuant to § 1245.207(h) and any report required by § 1245.204(b)(6) may be treated by NASA as commercial and financial information obtained from a person and privileged and confidential and not subject to disclosure under section 552 of Title 5 of the United States Code.

James M. Beggs,  
Administrator.

October 15, 1981.

[FR Doc. 81-31609 Filed 10-30-81; 8:45 am]

BILLING CODE 7510-01-M

## FOREIGN PATENT LICENSING REGULATIONS

Selected NASA inventions are also available for licensing in countries other than the United States in accordance with the NASA Foreign Patent Licensing Regulation (14 C.F.R. 1245.4), a copy of which is available from any NASA Patent Counsel. For abstracts of NASA-owned inventions available for licensing in countries other than the United States, see NASA SP-7038, "Significant NASA Inventions Available for Licensing in Countries Other Than the United States." A copy of this NASA publication is available from NASA Headquarters, Code GP, Washington, D.C., 20546

# Subject Categories

(1969 - 1973)

## Aerodynamics

Includes aerodynamics of bodies, combinations, internal flow in ducts and turbomachinery; wings, fins, and control surfaces. For applications see: 02 Aircraft and 32 Space Vehicles. For related information see also: 12 Fluid Mechanics; and 33 Thermodynamics and Combustion.

## Aircraft

Includes fixed-wing airplanes, helicopters, gliders, balloons, ornithopters, etc.; and specific types of complete aircraft (e.g., ground effect machines, STOL, and VTOL); flight tests; operating problems (e.g., sonic boom); safety and safety devices; economics; and stability and control. For basic research see: 01 Aerodynamics. For related information see also: 31 Space Vehicles; and 32 Structural Mechanics.

## Auxiliary Systems

Includes fuel cells, energy conversion cells, and solar cells; auxiliary gas turbines; hydraulic, pneumatic and electrical systems; actuators; and inverters. For related information see also: 09 Electronic Equipment; 22 Nuclear Engineering; and 28 Propulsion Systems.

## Biosciences

Includes aerospace medicine, exobiology, radiation effects on biological systems; physiological and psychological factors. For related information see also: 05 Biotechnology.

## Biotechnology

Includes life support systems, human engineering; protective clothing and equipment; crew training and evaluation, and piloting. For related information see also: 04 Biosciences.

## Chemistry

Includes chemical analysis and identification (e.g., spectroscopy). For applications see: 17 Materials, Metallic; 18 Materials, Nonmetallic; and 27 Propellants.

## Communications

Includes communications equipment and techniques; radio; radio and communications blackout; modulation telemetry; tracking radar and optical observation; and wave propagation. For basic research see: 23 Physics, General; and 21 Navigation.

## Computers

Includes computer operation and programming; and data processing. For applications, see specific categories. For related information see also: 19 Mathematics.

## 09 Electronic Equipment

Includes electronic test equipment and maintainability; component parts, e.g., electron tubes, tunnel diodes, transistors, integrated circuitry; microminiaturization. For basic research see: 10 Electronics. For related information see also: 07 Communications and 21 Navigation.

## 10 Electronics

Includes circuit theory; and feedback and control theory. For applications see: 09 Electronic Equipment. For related information see specific Physics categories.

## 11 Facilities, Research and Support

Includes airports; lunar and planetary bases including associated vehicles; ground support systems; related logistics; simulators; test facilities (e.g., rocket engine test stands, shock tubes, and wind tunnels); test ranges; and tracking stations.

## 12 Fluid Mechanics

Includes boundary-layer flow; compressible flow; gas dynamics; hydrodynamics; and turbulence. For related information see also: 01 Aerodynamics; and 33 Thermodynamics and Combustion.

## 13 Geophysics

Includes aeronomy; upper and lower atmosphere studies; oceanography; cartography; and geodesy. For related information see also: 20 Meteorology; 29 Space Radiation; and 30 Space Sciences.

## 14 Instrumentation and Photography

Includes design, installation, and testing of instrumentation systems; gyroscopes; measuring instruments and gages; recorders, transducers; aerial photography; and telescopes and cameras.

## 15 Machine Elements and Processes

Includes bearings, seals, pumps, and other mechanical equipment; lubrication, friction, and wear; manufacturing processes and quality control; reliability; drafting; and materials fabrication, handling, and inspection.

## 16 Masers

Includes applications of masers and lasers. For basic research see: 26 Physics, Solid-State.

## 17 Materials, Metallic

Includes cermets; corrosion; physical and mechanical properties of materials; metallurgy; and applications as structural materials. For basic research see: 06 Chemistry. For related information see also: 18 Materials, Nonmetallic; and 32 Structural Mechanics.

## 18 Materials, Nonmetallic

Includes corrosion; physical and mechanical properties of materials (e.g., plastics); and elastomers, hydraulic fluids, etc. For basic research see: 06 Chemistry. For related information see also: 17 Materials, Metallic; 27 Propellants; and 32 Structural Mechanics.

**19 Mathematics**

Includes calculation methods and theory; and numerical analysis. For applications see specific categories. For related information see also: 08 Computers.

**20 Meteorology**

Includes climatology; weather forecasting; and visibility studies. For related information see also: 13 Geophysics; and 30 Space Sciences.

**21 Navigation**

Includes guidance; autopilots; star and planet tracking; inertial platforms; and air traffic control. For related information see also: 07 Communications.

**22 Nuclear Engineering**

Includes nuclear reactors and nuclear heat sources used for propulsion and auxiliary power. For basic research see: 24 Physics, Atomic, Molecular, and Nuclear. For related information see also: 03 Auxiliary Systems; and 28 Propulsion Systems.

**23 Physics, General**

Includes acoustics, cryogenics, mechanics, and optics. For astrophysics see: 30 Space Sciences. For geophysics and related information see also: 13 Geophysics, 20 Meteorology, and 29 Space Radiation.

**24 Physics, Atomic, Molecular, and Nuclear**

Includes atomic, molecular and nuclear physics. For applications see: 22 Nuclear Engineering. For related information see also: 29 Space Radiation.

**25 Physics, Plasma**

Includes magnetohydrodynamics. For applications see: 28 Propulsion Systems.

**26 Physics, Solid-State**

Includes semiconductor theory; and superconductivity. For applications see: 16 Masers. For related information see also: 10 Electronics.

**27 Propellants**

Includes fuels; igniters; and oxidizers. For basic research see: 06 Chemistry; and 33 Thermodynamics and Combustion. For related information see also 28 Propulsion Systems.

**28 Propulsion Systems**

Includes air breathing; electric, liquid, solid, and magnetohydrodynamic propulsion. For nuclear propulsion see: 22 Nuclear Engineering. For basic research see: 23 Physics, General; and 33 Thermodynamics and Combustion. For applications see: 31 Space Vehicles. For related information see also: 27 Propellants.

**29 Space Radiation**

Includes cosmic radiation; solar flares; solar radiation; and Van Allen radiation belts. For related information see also: 13 Geophysics, and 24 Physics, Atomic, Molecular, and Nuclear.

**30 Space Sciences**

Includes astronomy and astrophysics; cosmology; lunar and planetary flight and exploration; and theoretical analysis of orbits and trajectories. For related information see also: 11 Facilities, Research and Support; and 31 Space Vehicles.

**31 Space Vehicles**

Includes launch vehicles; manned space capsules; clustered and multistage rockets; satellites; sounding rockets and probes; and operating problems. For basic research see: 30 Space Sciences. For related information see also: 28 Propulsion Systems; and 32 Structural Mechanics.

**32 Structural Mechanics**

Includes structural element design and weight analysis; fatigue; thermal stress; impact phenomena; vibration; flutter; inflatable structures; and structural tests. For related information see also: 17 Materials, Metallic; and 18 Materials, Nonmetallic.

**33 Thermodynamics and Combustion**

Includes ablation, cooling, heating, heat transfer, thermal balance, and other thermal effects; and combustion theory. For related information see also: 12 Fluid Mechanics; and 27 Propellants.

**34 General**

Includes information of a broad nature related to industrial applications and technology, and to basic research; defense aspects; information retrieval; management; law and related legal matters; and legislative hearings and documents.

# TABLE OF CONTENTS

## Section 1 • Abstracts

### Subject Categories (1974 - )

#### AERONAUTICS

Includes aeronautics (general); aerodynamics; air transportation and safety; aircraft communications and navigation; aircraft design, testing and performance; aircraft instrumentation; aircraft propulsion and power; aircraft stability and control; and research and support facilities (air).

For related information see also *Astronautics*.

#### 01 AERONAUTICS (GENERAL)

#### 02 AERODYNAMICS

Includes aerodynamics of bodies, combinations, wings, rotors, and control surfaces; and internal flow in ducts and turbomachinery.

For related information see also *34 Fluid Mechanics and Heat Transfer*.

#### 03 AIR TRANSPORTATION AND SAFETY

Includes passenger and cargo air transport operations; and aircraft accidents.

For related information see also *16 Space Transportation* and *85 Urban Technology and Transportation*.

#### 04 AIRCRAFT COMMUNICATIONS AND NAVIGATION

Includes digital and voice communication with aircraft; air navigation systems (satellite and ground based); and air traffic control.

For related information see also *17 Spacecraft Communications, Command and Tracking* and *32 Communications*.

#### 05 AIRCRAFT DESIGN, TESTING AND PERFORMANCE

Includes aircraft simulation technology.

For related information see also *18 Spacecraft Design, Testing and Performance* and *39 Structural Mechanics*.

#### 06 AIRCRAFT INSTRUMENTATION

Includes cockpit and cabin display devices; and flight instruments.

For related information see also *19 Spacecraft Instrumentation* and *35 Instrumentation and Photography*.

#### 07 AIRCRAFT PROPULSION AND POWER

Includes prime propulsion systems and systems components, e.g., gas turbine engines and compressors; and on-board auxiliary power plants for aircraft.

For related information see also *20 Spacecraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*.

#### 08 AIRCRAFT STABILITY AND CONTROL

Includes aircraft handling qualities; piloting; flight controls; and autopilots.

#### 09 RESEARCH AND SUPPORT FACILITIES (AIR)

Includes airports, hangars and runways; aircraft repair and overhaul facilities; wind tunnels; shock tube facilities; and engine test blocks.

For related information see also *14 Ground Support Systems and Facilities (Space)*.

## ASTRONAUTICS

Includes astronautics (general); astrodynamics; ground support systems and facilities (space); launch vehicles and space vehicles; space transportation; spacecraft communications, command and tracking; spacecraft design, testing and performance; spacecraft instrumentation; and spacecraft propulsion and power.

For related information see also *Aeronautics*.

#### 12 ASTRONAUTICS (GENERAL)

For extraterrestrial exploration see *91 Lunar and Planetary Exploration*.

#### 13 ASTRODYNAMICS

Includes powered and free-flight trajectories; and orbit and launching dynamics.

#### 14 GROUND SUPPORT SYSTEMS AND FACILITIES (SPACE)

Includes launch complexes, research and production facilities; ground support equipment, e.g., mobile transporters; and simulators.

For related information see also *09 Research and Support Facilities (Air)*.

#### 15 LAUNCH VEHICLES AND SPACE VEHICLES

Includes boosters; manned orbital laboratories; reusable vehicles; and space stations.

#### 16 SPACE TRANSPORTATION

Includes passenger and cargo space transportation, e.g., shuttle operations; and rescue techniques.

For related information see also *03 Air Transportation and Safety* and *85 Urban Technology and Transportation*.

#### 17 SPACECRAFT COMMUNICATION, COMMAND AND TRACKING

Includes telemetry; space communications networks; astronavigation; and radio blackout.

For related information see also *04 Aircraft Communications and Navigation* and *32 Communications*.

#### 18 SPACECRAFT DESIGN, TESTING AND PERFORMANCE

Includes spacecraft thermal and environmental control; and attitude control.

For life support systems see *54 Man System Technology and Life Support*. For related information see also *05 Aircraft Design, Testing and Performance* and *39 Structural Mechanics*.

#### 19 SPACECRAFT INSTRUMENTATION

For related information see also *06 Aircraft Instrumentation* and *35 Instrumentation and Photography*.

#### 20 SPACECRAFT PROPULSION AND POWER

Includes main propulsion systems and components, e.g., rocket engines; and spacecraft auxiliary power sources.

For related information see also *07 Aircraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*.



## **CHEMISTRY AND MATERIALS**

Includes chemistry and materials (general); composite materials; inorganic and physical chemistry; metallic materials; nonmetallic materials; and propellants and fuels.

### **23 CHEMISTRY AND MATERIALS (GENERAL)**

Includes biochemistry and organic chemistry.

### **24 COMPOSITE MATERIALS**

Includes laminates.

### **25 INORGANIC AND PHYSICAL CHEMISTRY**

Includes chemical analysis, e.g., chromatography; combustion theory; electrochemistry; and photochemistry.

For related information see also 77 *Thermodynamics and Statistical Physics*.

### **26 METALLIC MATERIALS**

Includes physical, chemical, and mechanical properties of metals, e.g., corrosion; and metallurgy.

### **27 NONMETALLIC MATERIALS**

Includes physical, chemical, and mechanical properties of plastics, elastomers, lubricants, polymers, textiles, adhesives, and ceramic materials.

### **28 PROPELLANTS AND FUELS**

Includes rocket propellants, igniters, and oxidizers; storage and handling; and aircraft fuels.

For related information see also 07 *Aircraft Propulsion and Power*, 20 *Spacecraft Propulsion and Power*, and 44 *Energy Production and Conversion*.

## **ENGINEERING**

Includes engineering (general); communications; electronics and electrical engineering; fluid mechanics and heat transfer; instrumentation and photography; lasers and masers; mechanical engineering; quality assurance and reliability; and structural mechanics.

For related information see also *Physics*.

### **31 ENGINEERING (GENERAL)**

Includes vacuum technology; control engineering; display engineering; and cryogenics.

### **32 COMMUNICATIONS**

Includes land and global communications; communications theory; and optical communications.

For related information see also 04 *Aircraft Communications and Navigation* and 17 *Spacecraft Communications, Command and Tracking*.

### **33 ELECTRONICS AND ELECTRICAL ENGINEERING**

Includes test equipment and maintainability; components, e.g., tunnel diodes and transistors; miniaturization; and integrated circuitry.

For related information see also 60 *Computer Operations and Hardware* and 76 *Solid-State Physics*.

### **34 FLUID MECHANICS AND HEAT TRANSFER**

Includes boundary layers; hydrodynamics; fluidics; mass transfer; and ablation cooling.

For related information see also 02 *Aerodynamics* and 77 *Thermodynamics and Statistical Physics*.

### **35 INSTRUMENTATION AND PHOTOGRAPHY**

Includes remote sensors; measuring instruments and gages; detectors; cameras and photographic supplies; and holography.

For aerial photography see 43 *Earth Resources*. For related information see also 06 *Aircraft Instrumentation* and 19 *Spacecraft Instrumentation*.

### **36 LASERS AND MASERS**

Includes parametric amplifiers.

### **37 MECHANICAL ENGINEERING**

Includes auxiliary systems (non-power); machine elements and processes; and mechanical equipment.

### **38 QUALITY ASSURANCE AND RELIABILITY**

Includes product sampling procedures and techniques; and quality control.

### **39 STRUCTURAL MECHANICS**

Includes structural element design and weight analysis; fatigue; and thermal stress.

For applications see 05 *Aircraft Design, Testing and Performance* and 18 *Spacecraft Design, Testing and Performance*.

## **GEOSCIENCES**

Includes geosciences (general); earth resources; energy production and conversion; environment pollution; geophysics; meteorology and climatology; and oceanography.

For related information see also *Space Sciences*.

### **42 GEOSCIENCES (GENERAL)**

### **43 EARTH RESOURCES**

Includes remote sensing of earth resources by aircraft and spacecraft; photogrammetry; and aerial photography.

For instrumentation see 35 *Instrumentation and Photography*.

### **44 ENERGY PRODUCTION AND CONVERSION**

Includes specific energy conversion systems, e.g., fuel cells and batteries; global sources of energy; fossil fuels; geophysical conversion; hydroelectric power; and wind power.

For related information see also 07 *Aircraft Propulsion and Power*, 20 *Spacecraft Propulsion and Power*, 28 *Propellants and Fuels*, and 85 *Urban Technology and Transportation*.

### **45 ENVIRONMENT POLLUTION**

Includes air, noise, thermal and water pollution; environment monitoring; and contamination control.

### **46 GEOPHYSICS**

Includes aeronomy; upper and lower atmosphere studies; ionospheric and magnetospheric physics; and geomagnetism.

For space radiation see 93 *Space Radiation*.

### **47 METEOROLOGY AND CLIMATOLOGY**

Includes weather forecasting and modification.

### **48 OCEANOGRAPHY**

Includes biological, dynamic and physical oceanography; and marine resources.

## **LIFE SCIENCES**

Includes sciences (general); aerospace medicine; behavioral sciences; man/system technology and life support; and planetary biology.

### **51 LIFE SCIENCES (GENERAL)**

Includes genetics.

### **52 AEROSPACE MEDICINE**

Includes physiological factors; biological effects of radiation; and weightlessness.

### **53 BEHAVIORAL SCIENCES**

Includes psychological factors; individual and group behavior; crew training and evaluation; and psychiatric research.

### **54 MAN/SYSTEM TECHNOLOGY AND LIFE SUPPORT**

Includes human engineering; biotechnology; and space suits and protective clothing.

### **55 PLANETARY BIOLOGY**

Includes exobiology; and extraterrestrial life.

## **MATHEMATICAL AND COMPUTER SCIENCES**

Includes mathematical and computer sciences (general); computer operations and hardware; computer programming and software; computer systems; cybernetics; numerical analysis; statistics and probability; systems analysis; and theoretical mathematics.

### **59 MATHEMATICAL AND COMPUTER SCIENCES (GENERAL)**

### **60 COMPUTER OPERATIONS AND HARDWARE**

Includes computer graphics and data processing.  
For components see 33 *Electronics and Electrical Engineering*.

### **61 COMPUTER PROGRAMMING AND SOFTWARE**

Includes computer programs, routines, and algorithms.

### **62 COMPUTER SYSTEMS**

Includes computer networks.

### **63 CYBERNETICS**

Includes feedback and control theory.  
For related information see also 54 *Man/System Technology and Life Support*.

### **64 NUMERICAL ANALYSIS**

Includes iteration, difference equations, and numerical approximation.

### **65 STATISTICS AND PROBABILITY**

Includes data sampling and smoothing; Monte Carlo method; and stochastic processes.

### **66 SYSTEMS ANALYSIS**

Includes mathematical modeling; network analysis; and operations research.

## **67 THEORETICAL MATHEMATICS**

Includes topology and number theory.

## **PHYSICS**

Includes physics (general); acoustics; atomic and molecular physics; nuclear and high-energy physics; optics; plasma physics; solid-state physics; and thermodynamics and statistical physics.

For related information see also *Engineering*.

### **70 PHYSICS (GENERAL)**

For geophysics see 46 *Geophysics*. For astrophysics see 90 *Astrophysics*. For solar physics see 92 *Solar Physics*.

### **71 ACOUSTICS**

Includes sound generation, transmission, and attenuation.

For noise pollution see 45 *Environment Pollution*.

### **72 ATOMIC AND MOLECULAR PHYSICS**

Includes atomic structure and molecular spectra.

### **73 NUCLEAR AND HIGH-ENERGY PHYSICS**

Includes elementary and nuclear particles; and reactor theory.

For space radiation see 93 *Space Radiation*.

### **74 OPTICS**

Includes light phenomena.

### **75 PLASMA PHYSICS**

Includes magnetohydrodynamics and plasma fusion.

For ionospheric plasmas see 46 *Geophysics*. For space plasmas see 90 *Astrophysics*.

### **76 SOLID-STATE PHYSICS**

Includes superconductivity.

For related information see also 33 *Electronics and Electrical Engineering* and 36 *Lasers and Masers*.

### **77 THERMODYNAMICS AND STATISTICAL PHYSICS**

Includes quantum mechanics; and Bose and Fermi statistics.

For related information see also 25 *Inorganic and Physical Chemistry* and 34 *Fluid Mechanics and Heat Transfer*.

## **SOCIAL SCIENCES**

Includes social sciences (general); administration and management; documentation and information science; economics and cost analysis; law and political science; and urban technology and transportation.

### **80 SOCIAL SCIENCES (GENERAL)**

Includes educational matters.

### **81 ADMINISTRATION AND MANAGEMENT**

Includes management planning and research.

## **82 DOCUMENTATION AND INFORMATION SCIENCE**

Includes information storage and retrieval technology; micrography; and library science.

For computer documentation see *61 Computer Programming and Software*.

## **83 ECONOMICS AND COST ANALYSIS**

Includes cost effectiveness studies.

## **84 LAW AND POLITICAL SCIENCE**

Includes space law; international law; international cooperation; and patent policy.

## **85 URBAN TECHNOLOGY AND TRANSPORTATION**

Includes applications of space technology to urban problems; technology transfer; technology assessment; and surface and mass transportation.

For related information see *03 Air Transportation and Safety*, *16 Space Transportation*, and *44 Energy Production and Conversion*.

## **SPACE SCIENCES**

Includes space sciences (general); astronomy; astrophysics; lunar and planetary exploration; solar physics; and space radiation.

For related information see also *Geosciences*.

## **88 SPACE SCIENCES (GENERAL)**

### **89 ASTRONOMY**

Includes radio and gamma-ray astronomy; celestial mechanics; and astrometry.

### **90 ASTROPHYSICS**

Includes cosmology; and interstellar and interplanetary gases and dust.

### **91 LUNAR AND PLANETARY EXPLORATION**

Includes planetology; and manned and unmanned flights.

For spacecraft design see *18 Spacecraft Design, Testing and Performance*. For space stations see *15 Launch Vehicles and Space Vehicles*.

### **92 SOLAR PHYSICS**

Includes solar activity, solar flares, solar radiation and sunspots.

### **93 SPACE RADIATION**

Includes cosmic radiation; and inner and outer earth's radiation belts.

For biological effects of radiation see *52 Aerospace Medicine*. For theory see *73 Nuclear and High-Energy Physics*.

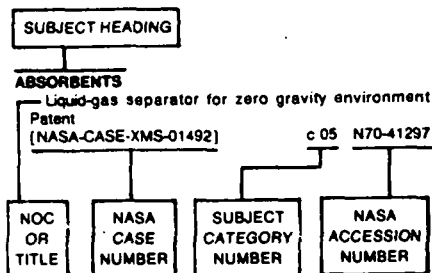
## **GENERAL**

### **99 GENERAL**

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#### Typical Subject Index Listing



The subject heading is the key to the subject content of the document. A brief description of the document, e.g., title, title plus a title extension, or Notation of Content (NOC), is included for each subject entry to indicate the subject heading context; these descriptions are arranged under each subject heading in ascending accession number order. The NASA Case Number serves as the prime access number to the patent documents. The Subject Category Number indicates the category in Section 1 (Abstracts) in which the patent citation and abstract are located. The NASA accession number denotes the number by which the citation is identified within the subject category.

#### A

##### ABERRATION

High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898

##### ABILITIES

Kinesimetric method and apparatus  
[NASA-CASE-MSC-18929-1] c 39 N83-20280

##### ABLATION

Transpirationally cooled heat ablation system Patent  
[NASA-CASE-XMS-02677] c 31 N70-42075

Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925

Hypersonic test facility Patent  
[NASA-CASE-XLA-05378] c 11 N71-21475

Ablation sensor Patent  
[NASA-CASE-XLA-01794] c 33 N71-21586

Ablation sensor Patent  
[NASA-CASE-XLA-01791] c 14 N71-22991

Ablative system  
[NASA-CASE-LEW-10359] c 33 N72-25911

##### ABLATIVE MATERIALS

Method for making a heat insulating and ablative structure  
[NASA-CASE-XMS-01108] c 15 N69-24322

Ablation sensor  
[NASA-CASE-XLA-01781] c 14 N69-39975

Method for molding compounds Patent  
[NASA-CASE-XLA-01091] c 15 N71-10672

Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032

Ablation structures Patent  
[NASA-CASE-XMS-01816] c 33 N71-15623

Method and apparatus for making a heat insulating and ablative structure Patent  
[NASA-CASE-XMS-02009] c 33 N71-20834

Thermal protection ablation spray system Patent  
[NASA-CASE-XLA-04251] c 18 N71-26100

Stand-off type ablative heat shield  
[NASA-CASE-MSC-12143-1] c 33 N72-17947

Ablative system  
[NASA-CASE-LEW-10359] c 33 N72-25911

Ablative system  
[NASA-CASE-LEW-10359-2] c 33 N73-25952

Ablation article and method  
[NASA-CASE-LAR-10439-1] c 33 N73-27796

Dual measurement ablation sensor  
[NASA-CASE-LAR-10105-1] c 34 N74-15652

Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290

Intumescent-ablator coatings using endothermic fillers  
[NASA-CASE-ARC-11043-1] c 24 N78-27180

Cork-resin ablative insulation for complex surfaces and method for applying the same  
[NASA-CASE-MFS-23626-1] c 24 N80-26388

Controlled overspray spray nozzle  
[NASA-CASE-MFS-25139-1] c 34 N82-13376

Thermal protection system  
[NASA-CASE-MSC-18796-1] c 24 N82-26389

##### ABORT APPARATUS

Coupling for linear shaped charge Patent  
[NASA-CASE-XLA-00189] c 33 N70-36846

##### ABRASION

Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-19540

##### ABRASION RESISTANCE

Potassium silicate zinc coatings  
[NASA-CASE-GSC-10361-1] c 18 N72-23581

Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses  
[NASA-CASE-ARC-11039-1] c 74 N78-32854

Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371

Heat sealable, flame and abrasion resistant coated fabric --- clothing and containers for space exploration  
[NASA-CASE-MSC-18382-1] c 27 N82-16238

Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324

Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324

Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324

Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324

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[NASA-CASE-MSC-18382-2] c 27 N84-14324

Heat sealable, flame and abrasion resistant coated fabric  
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##### ABSORPTION CROSS SECTIONS

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- Temperature compensated digital inertial sensor --- circuit for maintaining inertial element of gyroscope or accelerometer at constant position  
[NASA-CASE-NPO-13044-1] c 35 N74-15094
- Accelerometer telemetry system  
[NASA-CASE-ARC-10849-1] c 17 N76-29347
- ACCEPTABILITY**  
Cross correlation anomaly detection system  
[NASA-CASE-NPO-13283] c 38 N78-17395
- ACCEPTOR MATERIALS**  
III-V photocathode with nitrogen doping for increased quantum efficiency  
[NASA-CASE-NPO-12134-1] c 33 N76-31409
- ACCIDENT PREVENTION**  
CAT altitude avoidance system  
[NASA-CASE-NPO-15351-1] c 06 N83-10040
- ACCOMMODATION**  
Visual accommodation trainer-tester  
[NASA-CASE-ARC-11426-1] c 09 N84-12193
- ACCUMULATORS**  
Direct radiation cooling of the collector of linear beam tubes  
[NASA-CASE-XNP-09227] c 15 N69-24319  
Small rocket engine Patent  
[NASA-CASE-XLE-00685] c 28 N70-41992  
Small plasma probe Patent  
[NASA-CASE-XLE-02578] c 25 N71-20747  
Electrostatic collector for charged particles  
[NASA-CASE-LEW-11192-1] c 09 N73-13208  
Accumulator  
[NASA-CASE-MFS-19287-1] c 34 N77-30399  
Method for fabricating solar cells having integrated collector grids  
[NASA-CASE-LEW-12019-2] c 44 N79-18444  
Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N81-24711  
Urine collection apparatus --- feminine hygiene  
[NASA-CASE-MSC-18381-1] c 52 N81-28740  
Sweat collection capsule  
[NASA-CASE-ARC-11031-1] c 52 N81-29763  
Multistage depressed collector for dual mode operation --- for microwave transmitting tubes  
[NASA-CASE-LEW-13282-1] c 33 N82-24415  
A multistage spent particle collector and a method for making same  
[NASA-CASE-LEW-13914-1] c 35 N84-12447
- ACETALS**  
Synthesis of polymeric schiff bases by reaction of acetals and amine compounds Patent  
[NASA-CASE-XMF-08652] c 06 N71-11243
- ACETATES**  
Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil  
[NASA-CASE-NPO-08835-1] c 27 N78-33228
- ACETYLENE**  
Dicyanoacetylene polymers Patent  
[NASA-CASE-XNP-03250] c 06 N71-23500  
Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups --- for thermoplastic resins  
[NASA-CASE-LAR-12838-1] c 27 N83-34040
- ACOUSTIC ATTENUATION**  
Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity  
[NASA-CASE-LAR-11435-1] c 35 N76-15432
- ACOUSTIC DUCTS**  
Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts  
[NASA-CASE-LAR-11141-1] c 07 N74-32418
- ACOUSTIC IMPEDANCE**  
Method for detecting hydrogen gas  
[NASA-CASE-XMF-03873] c 06 N69-39733  
Improved impact tolerant material  
[NASA-CASE-LAR-12887-1] c 24 N84-20649  
Acoustic ground impedance meter  
[NASA-CASE-LAR-12995-1] c 35 N84-22933
- ACOUSTIC LEVITATION**  
Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15767  
Acoustic levitation methods and apparatus  
[NASA-CASE-NPO-15562-1] c 71 N82-27086  
Production of ultrapure amorphous metals utilizing acoustic cooling  
[NASA-CASE-NPO-15658-1] c 26 N83-19890  
Acoustic system for material transport  
[NASA-CASE-NPO-15453-1] c 71 N83-32515  
System for controlled acoustic rotation of objects  
[NASA-CASE-NPO-15522-1] c 71 N83-32516  
Acoustic suspension system  
[NASA-CASE-NPO-15435-1] c 71 N83-36846  
High temperature acoustic levitator  
[NASA-CASE-NPO-16022-1] c 71 N83-36847  
Contactless pellet fabrication  
[NASA-CASE-NPO-15592-1] c 71 N84-16940
- Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948  
Gravity enhanced acoustic levitation method and apparatus  
[NASA-CASE-NPO-16147-1] c 71 N84-16949  
Acoustic rotation control  
[NASA-CASE-NPO-15689-1] c 71 N84-23233  
Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568  
Containerless high purity pulling process and apparatus for glass fibers  
[NASA-CASE-MFS-25905-2] c 31 N84-32569
- ACOUSTIC MEASUREMENT**  
Instrumentation for measuring aircraft noise and sonic boom  
[NASA-CASE-LAR-11476-1] c 07 N76-27232  
Differential sound level meter  
[NASA-CASE-LAR-12106-1] c 71 N78-14867  
Pseudo continuous wave instrument --- ultrasonics  
[NASA-CASE-LAR-12260-1] c 35 N79-10390  
System for monitoring physical characteristics of fluids  
[NASA-CASE-NPO-15400-1] c 34 N83-31993  
Acoustic ground impedance meter  
[NASA-CASE-LAR-12995-1] c 35 N84-22933
- ACOUSTIC PROPAGATION**  
Material suspension within an acoustically excited resonant chamber --- at near weightless conditions  
[NASA-CASE-NPO-13263-1] c 12 N75-24774  
Resolution enhanced sound detecting apparatus  
[NASA-CASE-NPO-14134-1] c 71 N79-23753
- ACOUSTIC PROPERTIES**  
Wind tunnel microphone structure Patent  
[NASA-CASE-XNP-00250] c 11 N71-28779  
Acoustical transducer calibrating system and apparatus  
[NASA-CASE-FRC-10060-1] c 14 N73-27379  
Pseudo continuous wave instrument --- ultrasonics  
[NASA-CASE-LAR-12260-1] c 35 N79-10390
- ACOUSTICAL HOLOGRAPHY**  
Hybrid holographic non-destructive test system  
[NASA-CASE-MFS-23114-1] c 38 N78-32447
- ACOUSTICS**  
Image readout device with electronically variable spatial resolution  
[NASA-CASE-LAR-12633-1] c 33 N82-24416  
Acoustic rotation control  
[NASA-CASE-NPO-15689-1] c 71 N84-23233
- ACOUSTO-OPTICS**  
Apparatus for testing wiring harness by vibration generating means  
[NASA-CASE-MSC-15158-1] c 14 N72-17325  
Method and apparatus for background signal reduction in opto-acoustic absorption measurement  
[NASA-CASE-NPO-13683-1] c 35 N77-14411  
Differential optoacoustic absorption detector  
[NASA-CASE-NPO-13759-1] c 74 N78-17867  
Stark cell optoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015  
Stark effect spectrophone for continuous absorption spectra monitoring --- a technique for gas analysis  
[NASA-CASE-NPO-15102-1] c 25 N81-25159  
Coherently pulsed laser source  
[NASA-CASE-NPO-15111-1] c 36 N82-29589
- ACRYLATES**  
Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032
- ACRYLONITRILES**  
Method of carbonizing polyacrylonitrile fibers  
[NASA-CASE-ARC-11261-1] c 24 N83-25789
- ACTIVATED CARBON**  
Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634
- ACTIVATION ENERGY**  
Heat activated cell Patent  
[NASA-CASE-LEW-11359] c 03 N71-28579  
Method of making emf cell  
[NASA-CASE-LEW-11359-2] c 03 N72-20034
- ACTIVE CONTROL**  
Linear magnetic bearings --- active magnetic suspension of armatures  
[NASA-CASE-GSC-12582-1] c 37 N81-16469
- ACTUATOR DISKS**  
Cryogenic gyroscope housing --- with annular disks for gas spin-up  
[NASA-CASE-MFS-21136-1] c 35 N74-18323
- ACTUATORS**  
Electromechanical actuator  
[NASA-CASE-XNP-05975] c 15 N69-23185  
Bimetallic power controlled actuator  
[NASA-CASE-XNP-09776] c 09 N69-39929  
Gas actuated bolt disconnect Patent  
[NASA-CASE-XLA-00326] c 03 N70-34667  
Hermetically sealed explosive release mechanism Patent  
[NASA-CASE-XGS-00824] c 15 N71-16078
- Burst diaphragm flow initiator Patent  
[NASA-CASE-MFS-12915] c 11 N71-17600  
Controllers Patent  
[NASA-CASE-XMS-07487] c 15 N71-23255  
Mechanical actuator Patent  
[NASA-CASE-XGS-04548] c 15 N71-24045  
Radiator deployment actuator Patent  
[NASA-CASE-MSC-11817-1] c 15 N71-26611  
Electromechanical control actuator system Patent  
[NASA-CASE-ERC-10022] c 15 N71-26635  
Energy limiter for hydraulic actuators Patent  
[NASA-CASE-ARC-10131-1] c 15 N71-27754  
Telemetry actuated switch  
[NASA-CASE-ARC-10105] c 09 N72-17153  
Mechanically actuated triggered hand  
[NASA-CASE-MFS-20413] c 15 N72-21463  
Hermetically sealed elbow actuator  
[NASA-CASE-MFS-14710] c 09 N72-22195  
Ball screw linear actuator  
[NASA-CASE-NPO-11222] c 15 N72-25456  
Rotary actuator  
[NASA-CASE-NPO-10244] c 15 N72-26371  
Gas operated actuator  
[NASA-CASE-NPO-11340] c 15 N72-33477  
Redundant hydraulic control system for actuators  
[NASA-CASE-MFS-20944] c 15 N73-13466  
Electrolytic gas operated actuator  
[NASA-CASE-NPO-11369] c 15 N73-13467  
Manual actuator --- for spacecraft exercising machines  
[NASA-CASE-MFS-21481-1] c 37 N74-18127  
Optically actuated two position mechanical mover  
[NASA-CASE-NPO-13105-1] c 37 N74-21060  
Dual output variable pitch turbofan actuation system  
[NASA-CASE-LEW-12419-1] c 07 N77-14025  
Actuator device for artificial leg  
[NASA-CASE-MFS-23225-1] c 52 N77-14735  
Cyclical bi-directional rotary actuator  
[NASA-CASE-GSC-11883-1] c 37 N77-19458  
Actuator mechanism  
[NASA-CASE-GSC-11883-2] c 37 N78-31426  
Pressure limiting propellant actuating system  
[NASA-CASE-MSC-18179-1] c 20 N80-18097  
Phase-angle controller for Stirling engines  
[NASA-CASE-NPO-14388-1] c 37 N81-17432  
Electrical servo actuator bracket --- fuel control valves on jet engines  
[NASA-CASE-FRC-11044-1] c 37 N81-33483  
Hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands  
[NASA-CASE-LAR-12412-1] c 08 N82-24205  
Solar powered actuator with continuously variable auxiliary power control  
[NASA-CASE-MFS-25637-1] c 44 N82-26780  
Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098  
Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153  
Rotary stepping device with memory metal actuator  
[NASA-CASE-NPO-15482-1] c 37 N83-36484  
Memory metal actuator --- for use in electromechanical servocontrol systems  
[NASA-CASE-NPO-15960-1] c 37 N83-36485  
Synchronously deployable truss structure  
[NASA-CASE-LAR-13117-1] c 18 N84-16250  
Tubing and cable cutting tool  
[NASA-CASE-LAR-12786-1] c 37 N84-28085
- ADAPTERS**  
Image magnification adapter for cameras Patent  
[NASA-CASE-XMF-03844-1] c 14 N71-26474  
Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860
- ADAPTIVE CONTROL**  
Self-testing and repairing computer Patent  
[NASA-CASE-NPO-10567] c 08 N71-24633  
Synchronous dc direct drive system Patent  
[NASA-CASE-GSC-10065-1] c 10 N71-27136  
Ergometer  
[NASA-CASE-MFS-21109-1] c 05 N73-27941  
Adaptive voting computer system  
[NASA-CASE-MSC-13932-1] c 62 N74-14920  
Adaptive polarization separation  
[NASA-CASE-LAR-12196-1] c 33 N81-26358  
Apparatus for damping operator induced oscillations of a controlled system --- flight control  
[NASA-CASE-FRC-11041-1] c 33 N82-18493  
Adaptive reference voltage generator for firing angle control of line-commutated inverters  
[NASA-CASE-MFS-25215-1] c 33 N83-31953  
Adaptive control system for line-commutated inverters  
[NASA-CASE-MFS-25209-1] c 33 N83-35227
- ADAPTIVE FILTERS**  
Adaptive tracking notch filter system Patent  
[NASA-CASE-XMF-01892] c 10 N71-22986  
Apparatus for damping operator induced oscillations of a controlled system --- flight control  
[NASA-CASE-FRC-11041-1] c 33 N82-18493

**ADAPTIVE OPTICS**

Fluorescent radiation converter  
[NASA-CASE-GSC-12528-1] c 74 N81-24900

**ADDING CIRCUITS**

Full binary adder Patent  
[NASA-CASE-XGS-00689] c 08 N70-34787  
Automatic fault correction system for parallel signal channels Patent  
[NASA-CASE-XNP-03263] c 09 N71-18843

**ADDITION RESINS**

Tackifier for addition polyimides containing monomethylphthalate  
[NASA-CASE-LAR-12642-1] c 27 N81-29229

**ADDITIVES**

Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent  
[NASA-CASE-LAR-10173-1] c 27 N71-14090  
Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634  
Improved high temperature resistant polyimides  
[NASA-CASE-LEW-13864-1] c 27 N83-17715  
Toughening reinforced epoxy composites with brominated polymeric additives  
[NASA-CASE-ARC-11427-1] c 24 N83-25791

**ADDRESSING**

Automatic multi-banking of memory for microprocessors  
[NASA-CASE-NPO-15295-1] c 60 N82-11785

**ADENOSINE TRIPHOSPHATE**

Use of the enzyme hexokinase for the reduction of inherent light levels  
[NASA-CASE-XGS-05533] c 04 N69-27487  
Light detection instrument Patent  
[NASA-CASE-XGS-05534] c 23 N71-16355  
Lyophilized reaction mixtures Patent  
[NASA-CASE-XGS-05532] c 06 N71-17705  
Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions  
[NASA-CASE-GSC-11169-2] c 05 N73-32011  
Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794  
Rapid, quantitative determination of bacteria in water --- adenosine triphosphate  
[NASA-CASE-GSC-12158-1] c 51 N83-27569

**ADHESION**

Stud-bonding gun  
[NASA-CASE-MFS-20299] c 15 N72-11392  
Improved refractory coatings --- sputtered coatings on substrates that form stable nitrides  
[NASA-CASE-LEW-23169-2] c 26 N81-16209  
Refractory coatings  
[NASA-CASE-LEW-13169-2] c 26 N82-30371

**ADHESION TESTS**

Apparatus for the determination of the existence or non-existence of a bonding between two members Patent  
[NASA-CASE-MFS-13686] c 15 N71-18132  
High performance filletting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490

**ADHESIVE BONDING**

Solar cell mounting Patent  
[NASA-CASE-XNP-00826] c 03 N71-20895  
Honeycomb panel and method of making same Patent  
[NASA-CASE-XMF-01402] c 18 N71-21651  
Etching of aluminum for bonding Patent  
[NASA-CASE-XMF-02303] c 17 N71-23828  
Method and apparatus for attaching physiological monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293  
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-1] c 37 N75-15992  
Weld-bonded titanium structures  
[NASA-CASE-LAR-11549-1] c 37 N77-11397  
Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement  
[NASA-CASE-NPO-13764-1] c 27 N78-17215  
Thermal barrier coating system  
[NASA-CASE-LEW-12554-1] c 34 N78-18355  
Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under ceramic tiles  
[NASA-CASE-MSC-12619-2] c 27 N79-12221  
Surface finishing  
[NASA-CASE-MSC-12631-3] c 27 N81-14077  
Method of bonding plasticized elastomer to metal and articles produced thereby  
[NASA-CASE-MFS-25181-1] c 27 N82-24340  
Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-29390  
A solvent resistant, thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-29391

Thermal barrier coating system having improved adhesion  
[NASA-CASE-LEW-1335901] c 27 N83-31855

Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532  
Impacting device for testing insulation  
[NASA-CASE-MFS-25862-2] c 37 N84-33807

**ADHESIVES**

Polyimide adhesives  
[NASA-CASE-LAR-11397-1] c 27 N75-29263  
Polyimide adhesives  
[NASA-CASE-LAR-12181-1] c 27 N78-17205  
Crystalline polyimides --- reinforcing fibers for high temperature composites and adhesives as well as flame retardation  
[NASA-CASE-LAR-12099-1] c 27 N80-16158  
Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206  
Thermal protection system  
[NASA-CASE-MSC-18796-1] c 24 N82-26389  
Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775-1] c 27 N83-28240  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044  
Hot melt recharge system --- repairing damaged or missing tiles on space shuttle orbiter  
[NASA-CASE-LAR-12881-1] c 27 N84-14323

**ADJUSTING**

Instrument support with precise lateral adjustment Patent  
[NASA-CASE-XMF-00480] c 14 N70-39898  
Fine adjustment mount  
[NASA-CASE-MFS-20249] c 15 N72-11386  
Adjustable support  
[NASA-CASE-NPO-10721] c 15 N72-27484  
Clock setter  
[NASA-CASE-LAR-11458-1] c 35 N76-16392

**AERIAL RUDDERS**

Thrust augmented spin recovery device  
[NASA-CASE-LAR-11970-2] c 08 N81-19130

**AEROACOUSTICS**

Acoustically swept rotor --- helicopter noise reduction  
[NASA-CASE-ARC-11106-1] c 05 N80-14107

**AEROAERODYNAMIC BRAKES**

Annular supersonic decelerator or drogue Patent  
[NASA-CASE-XLE-00222] c 02 N70-37939  
Lightweight, variable solidity knitted parachute fabric --- for aerodynamic decelerators  
[NASA-CASE-LAR-10776-1] c 02 N74-10034

**AEROAERODYNAMIC CHARACTERISTICS**

Variable sweep wing aircraft Patent  
[NASA-CASE-XLA-00221] c 02 N70-33266  
Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087  
Space shuttle vehicle and system  
[NASA-CASE-MSC-12433] c 31 N73-14854  
Airfoil shape for flight at subsonic speeds --- design analysis and aerodynamic characteristics of the GAW-1 airfoil  
[NASA-CASE-LAR-10585-1] c 02 N76-22154  
Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999

**AEROAERODYNAMIC CONFIGURATIONS**

Variable-span aircraft Patent  
[NASA-CASE-XLA-00166] c 02 N70-34178  
Landing arrangement for aerial vehicle Patent  
[NASA-CASE-XLA-00806] c 02 N70-34858  
Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938  
Hypersonic reentry vehicle Patent  
[NASA-CASE-XMS-04142] c 31 N70-41631  
Translating horizontal tail Patent  
[NASA-CASE-XLA-08801-1] c 02 N71-11043  
Variable geometry manned orbital vehicle Patent  
[NASA-CASE-XLA-03891] c 31 N71-15674  
Nacelle afterbody for jet engines Patent  
[NASA-CASE-XLA-10450] c 28 N71-21493  
Variable geometry rotor system  
[NASA-CASE-LAR-10557] c 02 N72-11018  
Ferry system  
[NASA-CASE-LAR-10574-1] c 11 N73-13257  
Multistage aerospace craft --- perspective drawings of conceptual design  
[NASA-CASE-XMF-02263] c 05 N74-10907  
Supersonic fan blading --- noise reduction in turbofan engines  
[NASA-CASE-LEW-11402-1] c 07 N74-28226  
Free wing assembly for an aircraft  
[NASA-CASE-FRC-10092-1] c 05 N79-12061  
Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495

**AEROAERODYNAMIC DRAG**

Skin friction measuring device for aircraft  
[NASA-CASE-FRC-11029-1] c 06 N81-17057

**AEROAERODYNAMIC HEATING**

Heat protection apparatus Patent  
[NASA-CASE-XLA-00892] c 33 N71-17897  
Heat flux measuring system Patent  
[NASA-CASE-XFR-03802] c 33 N71-23085  
Stand-off type ablative heat shield  
[NASA-CASE-MSC-12143-1] c 33 N72-17947

**AEROAERODYNAMIC LOADS**

Propeller blade loading control Patent  
[NASA-CASE-XAC-00139] c 02 N70-34856  
Means for controlling aerodynamically induced twist  
[NASA-CASE-LAR-12175-1] c 05 N82-28279

**AEROAERODYNAMIC NOISE**

Apparatus for reducing aerodynamic noise in a wind tunnel  
[NASA-CASE-MFS-23099-1] c 09 N76-23273  
Acoustically swept rotor --- helicopter noise reduction  
[NASA-CASE-ARC-11106-1] c 05 N80-14107  
Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999

**AEROAERODYNAMIC STABILITY**

Meteorological balloon Patent  
[NASA-CASE-XMF-04163] c 02 N71-23007  
Instrument for measuring the dynamic behavior of liquids Patent  
[NASA-CASE-XLA-05541] c 12 N71-26387  
Emergency earth orbital escape device  
[NASA-CASE-MSC-13281] c 31 N72-18859  
High lift aircraft --- with improved stability, control, performance, and noise characteristics  
[NASA-CASE-LAR-11252-1] c 05 N75-25914  
Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029  
Annular wing  
[NASA-CASE-FRC-11007-2] c 05 N82-26277  
Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12720-1] c 44 N83-21504  
Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495

**AEROAERODYNAMIC STALLING**

Aerodynamic side-force alleviator means  
[NASA-CASE-LAR-12326-1] c 02 N81-14968

**AEROAERODYNAMIC ELASTICITY**

Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12458-1] c 44 N83-21503  
Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12720-1] c 44 N83-21504

**AERONAUTICAL ENGINEERING**

Differential pressure cell Patent  
[NASA-CASE-XAC-00042] c 14 N70-34816

**AEROSOLS**

Liquid aerosol dispenser  
[NASA-CASE-MFS-20829] c 12 N72-21310  
Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N76-22509  
Thermoluminescent aerosol analysis  
[NASA-CASE-LAR-12046-1] c 25 N78-15210  
Particle analyzing method and apparatus  
[NASA-CASE-NPO-15292-1] c 35 N83-27184

**AEROSPACE ENGINEERING**

Solar cell including second surface mirrors Patent  
[NASA-CASE-NPO-10109] c 03 N71-11049  
Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-10337] c 15 N71-24046  
Soldering device Patent  
[NASA-CASE-XLA-08911] c 15 N71-27214  
Installing fiber insulation  
[NASA-CASE-MSC-16973-1] c 37 N81-14317

**AEROSPACE ENVIRONMENTS**

Electrostatic thruster with improved insulators Patent  
[NASA-CASE-XLE-01902] c 28 N71-10574  
Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-01765] c 18 N71-10772  
Inorganic solid film lubricants Patent  
[NASA-CASE-XMF-03988] c 15 N71-21403  
Particle detection apparatus including a ballistic pendulum Patent  
[NASA-CASE-XMS-04201] c 14 N71-22990  
Alloys for bearings Patent  
[NASA-CASE-XLE-05033] c 15 N71-23810  
Method and apparatus for varying thermal conductivity Patent  
[NASA-CASE-XNP-05524] c 33 N71-24876  
Space simulator Patent  
[NASA-CASE-NPO-10141] c 11 N71-24964  
Cyclic switch Patent  
[NASA-CASE-LEW-10155-1] c 09 N71-29035  
Automatic blowaste sampling  
[NASA-CASE-MSC-14640-1] c 54 N76-14804  
Wobble gear drive mechanism --- for aerospace environments  
[NASA-CASE-WOO-00625] c 37 N78-17385  
Plasma cleaning device --- designed for high vacuum environments  
[NASA-CASE-MFS-22906-1] c 75 N78-27913



Process for spinning flame retardant elastomeric compositions — fabricating synthetic fibers for high oxygen environments [NASA-CASE-MSC-14331-3] c 27 N78-32262

General purpose rocket furnace [NASA-CASE-MFS-23460-1] c 12 N79-26075

Coated flexible laminate and method of its production [NASA-CASE-GSC-12913-1] c 27 N84-24807

**AEROSPACE MEDICINE**

Instrument for use in performing a controlled Valsalva maneuver Patent [NASA-CASE-XMS-01615] c 05 N70-41329

Cooling system for removing metabolic heat from an hermetically sealed spacesuit [NASA-CASE-ARC-11059-1] c 54 N78-32721

**AEROSPACE VEHICLES**

Landing arrangement for aerial vehicles Patent [NASA-CASE-XLA-00142] c 02 N70-33286

Landing pad assembly for aerospace vehicles Patent [NASA-CASE-XMF-02853] c 31 N70-36654

Landing arrangement for aerospace vehicle Patent [NASA-CASE-XLA-00805] c 31 N70-38010

Flexibly connected support and skin Patent [NASA-CASE-XLA-01027] c 31 N71-24035

Nondestructive spot test method for titanium and titanium alloys [NASA-CASE-LAR-10539-1] c 17 N73-12547

Aerospace vehicle [NASA-CASE-LAR-13155-1] c 18 N84-20628

**AEROSPACEPLANES**

Multistage aerospace craft — perspective drawings of conceptual design [NASA-CASE-XMF-02263] c 05 N74-10907

**AFTERBODIES**

Nacelle afterbody for jet engines Patent [NASA-CASE-XLA-10450] c 28 N71-21493

Missile rolling tail brake torque system — simulating bearing friction on canard controlled missiles [NASA-CASE-LAR-12751-1] c 15 N84-16231

**AFTERBURNING**

Nozzle Patent [NASA-CASE-XLA-00154] c 28 N70-33374

**AGGLOMERATION**

Acoustic agglomeration methods and apparatus [NASA-CASE-NPO-15466-1] c 71 N82-27087

**AGING (MATERIALS)**

Method of heat treating age-hardenable alloys [NASA-CASE-XNP-01311] c 26 N75-29236

**AGRICULTURE**

Solar-powered pump [NASA-CASE-NPO-13587-1] c 44 N76-29701

**AILERONS**

Control device Patent [NASA-CASE-XAC-10019] c 15 N71-23809

**AIR**

Gas purged dry box glove Patent [NASA-CASE-XLE-02531] c 05 N71-23080

Superconductive magnetic-field-trapping device [NASA-CASE-XNP-01185] c 26 N73-28710

**AIR BREATHING ENGINES**

Multiple pure tone elimination strut assembly — air breathing engines [NASA-CASE-FRC-11062-1] c 71 N82-16800

**AIR CONDITIONING**

Apparatus for supplying conditioned air at a substantially constant temperature and humidity [NASA-CASE-GSC-12191-1] c 31 N80-32583

Automotive absorption air conditioner utilizing solar and motor waste heat [NASA-CASE-NPO-15183-1] c 44 N82-26776

Air modulation apparatus [NASA-CASE-LEW-13524-1] c 07 N84-33410

**AIR CONDITIONING EQUIPMENT**

Portable superclean air column device Patent [NASA-CASE-XMF-03212] c 15 N71-22721

Air conditioning system and component therefore distributing air flow from opposite directions [NASA-CASE-GSC-11445-1] c 31 N74-27902

**AIR COOLING**

Modification and improvements to cooled blades Patent [NASA-CASE-XLE-00092] c 15 N70-33264

**AIR FILTERS**

Gas filter mounting structure [NASA-CASE-MSC-12297] c 14 N72-23457

**AIR FLOW**

Wind tunnel airstream oscillating apparatus Patent [NASA-CASE-XLA-00112] c 11 N70-33287

Method of obtaining permanent record of surface flow phenomena Patent [NASA-CASE-XLA-01353] c 14 N70-41368

Gas turbine combustor Patent [NASA-CASE-LEW-10286-1] c 28 N71-28915

Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds [NASA-CASE-LAR-10612-1] c 12 N73-28144

Air conditioning system and component therefore distributing air flow from opposite directions [NASA-CASE-GSC-11445-1] c 31 N74-27902

Controlled separation combustor — airflow distribution in gas turbine engines [NASA-CASE-LEW-11593-1] c 20 N76-14190

Method and apparatus for fluffing, separating, and cleaning fibers [NASA-CASE-LAR-11224-1] c 37 N76-18456

Smoke generator [NASA-CASE-ARC-10905-1] c 37 N77-13418

Variable cycle gas turbine engines [NASA-CASE-LEW-12918-1] c 37 N78-17384

Gas turbine engine with recirculating bleed [NASA-CASE-LEW-12452-1] c 07 N78-25089

Active clearance control system for a turbomachine [NASA-CASE-LEW-12938-1] c 07 N82-32368

Miniature electro-optical air flow sensor [NASA-CASE-LAR-13065-1] c 74 N83-25539

**AIR INTAKES**

Aeroflexible structures [NASA-CASE-XLA-06095] c 01 N69-39981

Reversed cowl flap inlet thrust augmentor — with adjustable airfoil [NASA-CASE-ARC-10754-1] c 07 N75-24736

Self stabilizing sonic inlet [NASA-CASE-LEW-11890-1] c 05 N79-24976

Curved centerline air intake for a gas turbine engine [NASA-CASE-LEW-13201-1] c 07 N81-14999

Control means for a gas turbine engine [NASA-CASE-LEW-14588-1] c 07 N83-31603

**AIR LOCKS**

Spacecraft airlock Patent [NASA-CASE-XLA-02050] c 31 N71-22968

Thruster maintenance system Patent [NASA-CASE-MFS-20325] c 28 N71-27095

An airlock [NASA-CASE-MFS-20922] c 31 N72-20840

Airlock [NASA-CASE-MFS-20922-1] c 18 N74-22136

Apparatus for inserting and removing specimens from high temperature vacuum furnaces [NASA-CASE-LAR-10841-1] c 31 N74-27900

**AIR NAVIGATION**

Autonomous navigation system — gyroscopic pendulum for air navigation [NASA-CASE-ARC-11257-1] c 04 N81-21047

Magnetic heading reference [NASA-CASE-LAR-12638-1] c 04 N84-14132

**AIR POLLUTION**

Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent [NASA-CASE-LAR-10180-1] c 06 N71-13461

Separation nut Patent [NASA-CASE-XGS-01971] c 15 N71-15922

Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver [NASA-CASE-NPO-11919-1] c 35 N74-11284

Fluorescence detector for monitoring atmospheric pollutants [NASA-CASE-NPO-13231-1] c 45 N75-27585

Stack plume visualization system [NASA-CASE-LAR-11675-1] c 45 N76-17656

Indicator providing continuous indication of the presence of a specific pollutant in air [NASA-CASE-NPO-13474-1] c 45 N76-21742

Method for detecting pollutants — through chemical reactions and heat treatment [NASA-CASE-LAR-11405-1] c 45 N76-31714

Combustion engine — for air pollution control [NASA-CASE-NPO-13871-1] c 37 N77-31497

Coal desulfurization process [NASA-CASE-NPO-13937-1] c 44 N78-31527

**AIR PURIFICATION**

High pressure gas filter system Patent [NASA-CASE-MFS-12806] c 14 N71-17588

Portable superclean air column device Patent [NASA-CASE-XMF-03212] c 15 N71-22721

Cell and method for electrolysis of water and anode [NASA-CASE-MSC-16394-1] c 28 N81-24280

**AIR SAMPLING**

Aerodynamic measuring device Patent [NASA-CASE-XLA-00481] c 14 N70-36824

Sampler of gas borne particles [NASA-CASE-NPO-13306-1] c 35 N76-18401

Automated syringe sampler — remote sampling of air and water [NASA-CASE-LAR-12308-1] c 35 N81-29407

Mobile sampler for use in acquiring samples of terrestrial atmospheric gases [NASA-CASE-NPO-15220-1] c 45 N83-25217

**AIR TRAFFIC CONTROL**

Traffic control system and method Patent [NASA-CASE-GSC-10087-1] c 02 N71-19287

Satellite aided vehicle avoidance system Patent [NASA-CASE-ERC-10090] c 21 N71-24948

Position location system and method [NASA-CASE-GSC-10087-3] c 07 N72-12080

Video processor for air traffic control beacon system [NASA-CASE-KSC-11155-1] c 33 N84-15395

**AIRBORNE EQUIPMENT**

Inflatable radar reflector unit Patent [NASA-CASE-XMS-00893] c 07 N70-40063

**AIRBORNE/SPACEBORNE COMPUTERS**

Ripple add and ripple subtract binary counters Patent [NASA-CASE-XGS-04766] c 08 N71-18602

Shared memory for a fault-tolerant computer [NASA-CASE-NPO-13139-1] c 60 N76-21914

**AIRCRAFT**

System for indicating direction of intruder aircraft [NASA-CASE-ERC-10226-1] c 14 N73-16483

Thin conformal antenna array for microwave power conversions [NASA-CASE-NPO-13886-1] c 32 N78-24391

System for indicating fuel-efficient aircraft altitude [NASA-CASE-NPO-15351-2] c 06 N84-34443

**AIRCRAFT ACCIDENTS**

Satellite aided vehicle avoidance system Patent [NASA-CASE-ERC-10090] c 21 N71-24948

**AIRCRAFT ANTENNAS**

Spiral slotted phased antenna array [NASA-CASE-MSC-18532-1] c 32 N82-27558

**AIRCRAFT COMPARTMENTS**

Low density bismaleimide-carbon microballoon composites — aircraft and submarine compartment safety [NASA-CASE-ARC-11040-2] c 24 N78-27184

**AIRCRAFT CONFIGURATIONS**

Variable sweep wing configuration Patent [NASA-CASE-XLA-00230] c 02 N70-33255

Television simulation for aircraft and space flight Patent [NASA-CASE-XFR-03107] c 09 N71-19449

Dual-fuselage aircraft having yawable wing and horizontal stabilizer [NASA-CASE-ARC-10470-1] c 02 N73-26005

Family of airfoil shapes for rotating blades — for increased power efficiency and blade stability [NASA-CASE-LAR-12843-1] c 02 N84-11136

**AIRCRAFT CONSTRUCTION MATERIALS**

Fuselage structure using advanced technology fiber reinforced composites [NASA-CASE-LAR-11688-1] c 24 N82-26384

Curved cap corrugated sheet [NASA-CASE-LAR-12884-1] c 18 N84-33450

**AIRCRAFT CONTROL**

Control for flexible parawing Patent [NASA-CASE-XLA-06958] c 02 N71-11038

Altitude controls for VTOL aircraft Patent [NASA-CASE-XAC-08972] c 02 N71-20570

Control device Patent [NASA-CASE-XAC-10019] c 15 N71-23809

Direct lift control system Patent [NASA-CASE-LAR-10249-1] c 02 N71-26110

High speed flight vehicle control Patent [NASA-CASE-XLA-08967] c 02 N71-27088

Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent [NASA-CASE-XAC-00048] c 02 N71-29128

Flight control system [NASA-CASE-MSC-13397-1] c 21 N72-25595

Aircraft control system [NASA-CASE-ERC-10439] c 02 N73-19004

Display system [NASA-CASE-ERC-10350] c 14 N73-20474

Suppression of flutter [NASA-CASE-LAR-10682-1] c 02 N73-26004

Integrated lift/drag controller for aircraft [NASA-CASE-ARC-10456-1] c 05 N75-12930

High lift aircraft — with improved stability, control, performance, and noise characteristics [NASA-CASE-LAR-11252-1] c 05 N75-25914

Filtering technique based on high-frequency plant modeling for high-gain control [NASA-CASE-LAR-12215-1] c 08 N79-23097

Velocity vector control system augmented with direct lift control [NASA-CASE-LAR-12268-1] c 08 N81-24106

Pitch attitude stabilization system utilizing engine pressure ratio feedback signals [NASA-CASE-LAR-12562-1] c 08 N81-26152

Aircraft control position indicator [NASA-CASE-LAR-12984-1] c 06 N84-20522

**AIRCRAFT DESIGN**

Supersonic aircraft Patent [NASA-CASE-XLA-04451] c 02 N71-12243

Dual-fuselage aircraft having yawable wing and horizontal stabilizer [NASA-CASE-ERC-10470-1] c 02 N73-26005

- Multistage aerospace craft --- perspective drawings of conceptual design  
[NASA-CASE-XMF-02263] c 05 N74-10907
- High lift aircraft --- with improved stability, control, performance, and noise characteristics  
[NASA-CASE-LAR-11252-1] c 05 N75-25914
- Oblique-wing supersonic aircraft  
[NASA-CASE-ARC-10470-3] c 05 N76-29217
- Supersonic transport --- using canard surfaces  
[NASA-CASE-LAR-11932-1] c 05 N78-32086
- Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092
- Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495
- Shapes for rotating airfoils  
[NASA-CASE-LAR-12396-1] c 02 N84-28732
- AIRCRAFT DETECTION**
- Altitude measuring system  
[NASA-CASE-ERC-10412-1] c 09 N73-12211
- Apparatus for measuring an aircraft's speed and height  
[NASA-CASE-LAR-12275-1] c 35 N79-18296
- AIRCRAFT ENGINES**
- Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts  
[NASA-CASE-LAR-11141-1] c 07 N74-32418
- Dual cycle aircraft turbine engine  
[NASA-CASE-LAR-11310-1] c 07 N77-28118
- Portable device for use in starting air-start-units for aircraft and having cable lead testing capability  
[NASA-CASE-FRC-10113-1] c 33 N80-26599
- Aircraft engine nozzle  
[NASA-CASE-ARC-10977-1] c 07 N80-32392
- Diesel engine catalytic combustor system --- aircraft engines  
[NASA-CASE-LEW-12995-1] c 37 N84-33808
- AIRCRAFT EQUIPMENT**
- Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437
- Air speed and altitude probe  
[NASA-CASE-FRC-11009-1] c 06 N80-18036
- Cooling system for high speed aircraft  
[NASA-CASE-LAR-12406-1] c 05 N81-26114
- System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075
- Piezoelectric deicing device  
[NASA-CASE-LEW-13773-2] c 35 N84-32782
- AIRCRAFT FUEL SYSTEMS**
- Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-13231-1] c 37 N78-10467
- AIRCRAFT GUIDANCE**
- Terminal guidance system --- for guiding aircraft into preselected altitude and/or heading at terminal point  
[NASA-CASE-FRC-10049-1] c 04 N74-13420
- Sun sensing guidance system for high altitude aircraft  
[NASA-CASE-FRC-11052-1] c 04 N82-23231
- AIRCRAFT HAZARDS**
- Inlet deflector for jet engines Patent  
[NASA-CASE-XLE-00388] c 28 N70-34788
- AIRCRAFT HYDRAULIC SYSTEMS**
- Gas turbine engine fuel control  
[NASA-CASE-LEW-11187-1] c 28 N73-19793
- Hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands  
[NASA-CASE-LAR-12412-1] c 08 N82-24205
- AIRCRAFT INSTRUMENTS**
- Airplane take-off performance indicator Patent  
[NASA-CASE-XLA-00100] c 14 N70-36807
- Aerodynamic measuring device Patent  
[NASA-CASE-XLA-00481] c 14 N70-36824
- Aircraft instrument Patent  
[NASA-CASE-XLA-00487] c 14 N70-40157
- Optical projector system Patent  
[NASA-CASE-XNP-03853] c 23 N71-21882
- Combined optical attitude and altitude indicating instrument Patent  
[NASA-CASE-XLA-01907] c 14 N71-23268
- Head-up attitude display  
[NASA-CASE-ERC-10392] c 21 N73-14692
- G-load measuring and indicator apparatus  
[NASA-CASE-ARC-10806-1] c 35 N75-29381
- Magnetic heading reference  
[NASA-CASE-LAR-11387-1] c 04 N76-20114
- Aircraft-mounted crash-activated transmitter device  
[NASA-CASE-MFS-16609-3] c 03 N76-32140
- Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733
- System for indicating fuel-efficient aircraft altitude  
[NASA-CASE-NPO-15351-2] c 06 N84-34443
- AIRCRAFT LANDING**
- Landing arrangement for aerial vehicle Patent  
[NASA-CASE-XLA-00806] c 02 N70-34858
- Magnetic position detection method and apparatus  
[NASA-CASE-ARC-10179-1] c 21 N72-22619
- Integrated lift/drag controller for aircraft  
[NASA-CASE-ARC-10456-1] c 05 N75-12930
- Vehicle simulator binocular multipanar visual display system  
[NASA-CASE-ARC-10808-1] c 09 N76-24280
- Full color hybrid display for aircraft simulators --- landing aids  
[NASA-CASE-ARC-10903-1] c 09 N78-18083
- Environmental fog/rain visual display system for aircraft simulators  
[NASA-CASE-ARC-11158-1] c 09 N82-24212
- AIRCRAFT LAUNCHING DEVICES**
- Rotating launch device for a remotely piloted aircraft  
[NASA-CASE-ARC-10979-1] c 09 N77-19076
- AIRCRAFT MANEUVERS**
- G-load measuring and indicator apparatus  
[NASA-CASE-ARC-10806-1] c 35 N75-29381
- Dual towline anti-spin device --- for flight tests  
[NASA-CASE-LAR-13076-1] c 05 N83-34934
- AIRCRAFT MODELS**
- Test unit free-flight suspension system Patent  
[NASA-CASE-XLA-00939] c 11 N71-15926
- Variable geometry wind tunnels  
[NASA-CASE-XLA-07430] c 11 N72-22246
- Deploy/release system --- model aircraft flight control  
[NASA-CASE-LAR-11575-1] c 02 N76-16014
- AIRCRAFT NOISE**
- Instrumentation for measuring aircraft noise and sonic boom  
[NASA-CASE-LAR-11476-1] c 07 N76-27232
- AIRCRAFT PERFORMANCE**
- Ferry system  
[NASA-CASE-LAR-10574-1] c 11 N73-13257
- AIRCRAFT PILOTS**
- Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot  
[NASA-CASE-LAR-10550-1] c 09 N74-30597
- AIRCRAFT SAFETY**
- Airplane take-off performance indicator Patent  
[NASA-CASE-XLA-00100] c 14 N70-36807
- Display research collision warning system  
[NASA-CASE-HQN-10703] c 21 N73-13643
- Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft  
[NASA-CASE-LAR-10753-1] c 08 N74-30421
- Variable response load limiting device --- for aircraft seats  
[NASA-CASE-LAR-12801-1] c 37 N82-20544
- Extended moment arm anti-spin device  
[NASA-CASE-LAR-12979-1] c 02 N83-29173
- Fire blocking systems for aircraft seat cushions  
[NASA-CASE-ARC-11423-1] c 03 N84-33394
- AIRCRAFT SPIN**
- Extended moment arm anti-spin device  
[NASA-CASE-LAR-12979-1] c 02 N83-29173
- Dual towline anti-spin device --- for flight tests  
[NASA-CASE-LAR-13076-1] c 05 N83-34934
- AIRCRAFT STABILITY**
- Mechanical stability augmentation system Patent  
[NASA-CASE-XLA-06339] c 02 N71-13422
- Suppression of flutter  
[NASA-CASE-LAR-10682-1] c 02 N73-26004
- AIRCRAFT STRUCTURES**
- Fatigue testing device Patent  
[NASA-CASE-XLA-02131] c 32 N70-42003
- Heat flux measuring system Patent  
[NASA-CASE-XFR-03802] c 33 N71-23085
- Three-axis adjustable loading structure  
[NASA-CASE-FRC-10051-1] c 35 N74-13129
- Transparent fire resistant polymeric structures  
[NASA-CASE-ARC-10813-1] c 27 N76-16230
- Wingtip vortex dissipator for aircraft  
[NASA-CASE-LAR-11645-1] c 02 N77-10001
- Aircraft canopy lock  
[NASA-CASE-FRC-11065-1] c 05 N83-19737
- Metal matrix composite structural panel construction  
[NASA-CASE-LAR-12807-1] c 24 N84-11214
- Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859
- AIRCRAFT TIRES**
- Improved tire/wheel concept --- pneumatic aircraft tire  
[NASA-CASE-LAR-11695-2] c 37 N80-18402
- Tire/wheel concept  
[NASA-CASE-LAR-11695-2] c 37 N81-24443
- AIRCRAFT WAKES**
- System for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations  
[NASA-CASE-FRC-11024-1] c 02 N80-28300
- AIRFOIL PROFILES**
- Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability  
[NASA-CASE-LAR-12843-1] c 02 N84-11138
- AIRFOILS**
- Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-00755] c 01 N71-13410
- Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-05828] c 01 N71-13411
- Wind tunnel  
[NASA-CASE-LAR-10135-1] c 09 N79-21083
- Surface finishing  
[NASA-CASE-MS-C-12631-3] c 27 N81-14077
- AIRFRAMES**
- Dual-fuselage aircraft having yawable wing and horizontal stabilizer  
[NASA-CASE-ARC-10470-1] c 02 N73-26005
- Cooling system for high speed aircraft  
[NASA-CASE-LAR-12409-1] c 05 N81-26114
- Explosively activated egress area  
[NASA-CASE-LAR-12624-1] c 01 N83-35992
- AIRSPEED**
- Landing arrangement for aerial vehicle Patent  
[NASA-CASE-XLA-00806] c 02 N70-34858
- Apparatus for measuring an aircraft's speed and height  
[NASA-CASE-LAR-12275-1] c 35 N79-18296
- Air speed and altitude probe  
[NASA-CASE-FRC-11009-1] c 06 N80-18036
- Miniature electro-optical air flow sensor  
[NASA-CASE-LAR-13065-1] c 74 N83-25539
- ALCOHOLS**
- Trifunctional alcohol  
[NASA-CASE-NPO-10714] c 06 N69-31244
- Laser coolant and ultraviolet filter  
[NASA-CASE-MFS-20180] c 16 N72-12440
- ALDEHYDES**
- Direct synthesis of polymeric Schiff bases from two amines and two aldehydes Patent  
[NASA-CASE-XMF-08655] c 06 N71-11239
- Azine polymers and process for preparing the same Patent  
[NASA-CASE-XMF-08656] c 06 N71-11242
- Aromatic diamine-aromatic dialdehyde high molecular weight Schiff base polymers prepared in a monofunctional Schiff base Patent  
[NASA-CASE-XMF-03074] c 06 N71-24740
- Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof  
[NASA-CASE-NPO-10557] c 27 N78-17214
- Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188
- ALIGNMENT**
- Instrument support with precise lateral adjustment Patent  
[NASA-CASE-XMF-00480] c 14 N70-39898
- Portable alignment tool Patent  
[NASA-CASE-XMF-01452] c 15 N70-41371
- Optical alignment system Patent  
[NASA-CASE-XNP-02029] c 14 N70-41955
- Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688
- Aligning and positioning device Patent  
[NASA-CASE-XMS-04178] c 15 N71-22798
- Method and apparatus for aligning a laser beam projector Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125
- Roll alignment detector  
[NASA-CASE-GSC-10514-1] c 14 N72-20379
- Zero gravity shadow shield aligner  
[NASA-CASE-KSC-10622-1] c 31 N72-21893
- Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397
- Spacecraft docking and alignment system --- using television camera system  
[NASA-CASE-MS-C-12559-1] c 18 N76-14186
- Method of constructing dished ion thruster grids to provide hole array spacing compensation  
[NASA-CASE-LEW-11876-1] c 20 N76-21276
- Optical alignment device  
[NASA-CASE-ARC-10932-1] c 74 N76-22993
- Precision alignment apparatus for cutting a workpiece  
[NASA-CASE-LAR-11658-1] c 37 N77-14478
- Guide for a typewriter  
[NASA-CASE-MFS-15218-1] c 37 N77-19457
- Simulator scene display evaluation  
[NASA-CASE-ARC-11504-1] c 09 N84-16221
- Rotary target V-block  
[NASA-CASE-LAR-12007-3] c 35 N84-16523
- Low loss splicing method for single-mode optical fiber  
[NASA-CASE-NPO-16294-1] c 74 N84-33179
- ALIPHATIC COMPOUNDS**
- The 1,1,1-triary-2,2,2-trifluoroethanes and process for their synthesis  
[NASA-CASE-ARC-11097-1] c 25 N82-24312

## ALKALI HALIDES

- Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118

## ALKALI METALS

- Alkali-metal silicate protective coating  
[NASA-CASE-XGS-04119] c 18 N69-39979  
Analytical test apparatus and method for determining oxide content of alkali metal Patent  
[NASA-CASE-XLE-01997] c 06 N71-23527  
Alkali metal silicate protective coating Patent  
[NASA-CASE-XGS-04799] c 18 N71-24183  
Heat activated cell with alkali anode and alkali salt electrolyte Patent  
[NASA-CASE-LEW-11358] c 03 N71-26084  
Preparation of alkali metal dispersions  
[NASA-CASE-XNP-08876] c 17 N73-28573  
Process for preparing higher oxides of the alkali and alkaline earth metals  
[NASA-CASE-ARC-10992-1] c 26 N78-32229  
Alkali-metal silicate binders and methods of manufacture  
[NASA-CASE-GSC-12303-1] c 24 N79-31347  
Heat pipes containing alkali metal working fluid  
[NASA-CASE-LEW-12253-1] c 74 N83-19596  
Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118

## ALKALINE BATTERIES

- Method for determining the state of charge of batteries by the use of tracers Patent  
[NASA-CASE-XNP-01464] c 03 N71-10728  
Electrochemical coulometer and method of forming same Patent  
[NASA-CASE-XGS-05434] c 03 N71-20491  
Electrocatalyst for oxygen reduction  
[NASA-CASE-HQN-10537-1] c 06 N72-10138  
Inorganic-organic separators for alkaline batteries  
[NASA-CASE-LEW-12649-1] c 44 N78-25530  
Polyvinyl alcohol battery separator containing inert filler --- alkaline batteries  
[NASA-CASE-LEW-13556-1] c 44 N81-27615  
Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531  
Process of treating cellulosic membrane and alkaline with membrane separator  
[NASA-CASE-GSC-10019-1] c 44 N82-24641  
Separator for alkaline batteries and method of making same  
[NASA-CASE-GSC-10350-1] c 44 N82-24642  
Separator for alkaline electric cells and method of making  
[NASA-CASE-GSC-10017-1] c 44 N82-24643  
Separator for alkaline electric batteries and method of making  
[NASA-CASE-GSC-10018-1] c 44 N82-24644  
Aqueous alkali metal hydroxide insoluble cellulose ether membrane  
[NASA-CASE-XGS-05584-1] c 25 N82-29370  
Advanced inorganic separators for alkaline batteries  
[NASA-CASE-LEW-13171-1] c 44 N82-29708  
Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-2] c 44 N83-29805  
Advanced inorganic separators for alkaline batteries and method of making the same  
[NASA-CASE-LEW-13171-2] c 44 N83-32176  
Additive for zinc electrodes --- electric automobiles  
[NASA-CASE-LEW-13286-1] c 33 N84-14422

## ALKALINE EARTH OXIDES

- Process for preparing higher oxides of the alkali and alkaline earth metals  
[NASA-CASE-ARC-10992-1] c 26 N78-32229

## ALKYL COMPOUNDS

- Fluorohydroxy ethers  
[NASA-CASE-MFS-10507] c 06 N73-30101  
Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744

## ALKYNES

- High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523  
Phenoxy resins containing pendent ethynyl groups and cured resins therefrom  
[NASA-CASE-LAR-13262-1] c 27 N84-24805

## ALLOYS

- Brazing alloy Patent  
[NASA-CASE-XNP-03063] c 17 N71-23365  
Alloys for bearings Patent  
[NASA-CASE-XLE-05033] c 15 N71-23810  
Process for applying black coating to metals Patent  
[NASA-CASE-XLA-06199] c 15 N71-24875  
Adjustable mount for a trihedral mirror Patent  
[NASA-CASE-XNP-08907] c 23 N71-29123

- Enhanced diffusion welding  
[NASA-CASE-LEW-11388-1] c 15 N73-32358  
Brazing alloy binder  
[NASA-CASE-XMF-05868] c 26 N75-27125  
Brazing alloy  
[NASA-CASE-XNP-03878] c 26 N75-27127

## ALPHA PARTICLES

- Method and means for helium/hydrogen ratio measurement by alpha scattering  
[NASA-CASE-NPO-14078-1] c 25 N80-20334

## ALPHANUMERIC CHARACTERS

- X-Y alphanumeric character generator for oscilloscopes  
[NASA-CASE-GSC-11582-1] c 33 N75-19517

## ALTERNATING CURRENT

- Ac power amplifier Patent Application  
[NASA-CASE-LAR-10218-1] c 09 N70-34559  
Frequency control network for a current feedback oscillator Patent  
[NASA-CASE-GSC-10041-1] c 10 N71-19418  
Blood pressure measuring system for separating and separately recording dc signal and an ac signal Patent  
[NASA-CASE-XMS-06061] c 05 N71-23317  
Switching circuit Patent  
[NASA-CASE-XNP-06505] c 10 N71-24799  
Pulse width inverter Patent  
[NASA-CASE-MFS-10068] c 10 N71-25139  
Inverter with means for base current shaping for sweeping charge carriers from base region Patent  
[NASA-CASE-XGS-06226] c 10 N71-25950  
A dc to ac to dc converter having transistor synchronous rectifiers  
[NASA-CASE-GSC-11126-1] c 09 N72-25253  
Phase protection system for ac power lines  
[NASA-CASE-MS-17832-1] c 33 N74-14956  
Solar cell system having alternating current output  
[NASA-CASE-LEW-12806-2] c 44 N81-12542  
Power factor control system for ac induction motors  
[NASA-CASE-MFS-23988-1] c 33 N81-27395  
Non-contacting power transfer device  
[NASA-CASE-GSC-12595-1] c 33 N82-24422  
Motor power control circuit for ac induction motors  
[NASA-CASE-MFS-25323-1] c 33 N84-22886  
Coupling an induction motor type generator to ac power lines --- making windmill generators compatible with public power lines  
[NASA-CASE-MFS-25302-2] c 33 N84-33660  
Three-phase power factor controller with induced EMF sensing  
[NASA-CASE-MFS-25852-1] c 33 N84-33661

## ALTIMETERS

- Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376

## ALTITUDE

- Combined optical attitude and altitude indicating instrument Patent  
[NASA-CASE-XLA-01907] c 14 N71-23268

## ALTITUDE CONTROL

- Check valve assembly for a probe Patent  
[NASA-CASE-XLA-00128] c 15 N70-37925

## ALUMINUM

- Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443  
Thermal control coating Patent  
[NASA-CASE-XLA-01995] c 18 N71-23047  
Etching of aluminum for bonding Patent  
[NASA-CASE-XMF-02303] c 17 N71-23828  
Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142  
Plating nickel on aluminum castings Patent  
[NASA-CASE-XNP-04148] c 17 N71-24830  
Method of plating copper on aluminum Patent  
[NASA-CASE-XLA-08966-1] c 17 N71-25903  
Heat activated cell Patent  
[NASA-CASE-LEW-11359] c 03 N71-28579  
Method of making emf cell  
[NASA-CASE-LEW-11359-2] c 03 N72-20034  
Method of preparing graphite reinforced aluminum composite  
[NASA-CASE-MFS-21077-1] c 24 N75-28135  
Method of fluxless brazing and diffusion bonding of aluminum containing components  
[NASA-CASE-MS-14435-1] c 37 N78-18455  
Method for making an aluminum or copper substrate panel for selective absorption of solar energy  
[NASA-CASE-MFS-23518-1] c 44 N79-11469  
Recovery of aluminum from composite propellants  
[NASA-CASE-NPO-14110-1] c 28 N81-15119  
High performance fillet sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490  
Variable anodic thermal control coating  
[NASA-CASE-LAR-12719-1] c 44 N83-34449

## ALUMINUM ALLOYS

- Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02786] c 17 N71-20743

- Etching of aluminum for bonding Patent  
[NASA-CASE-XMF-02303] c 17 N71-23828  
Method of producing complex aluminum alloy parts of high temper. and products thereof  
[NASA-CASE-MS-19693-1] c 26 N78-24333  
Nical ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505  
Metal matrix composite structural panel construction  
[NASA-CASE-LAR-12807-1] c 24 N84-11214

## ALUMINUM COATINGS

- Nickel aluminide coated low alloy stainless steel  
[NASA-CASE-LEW-11267-1] c 17 N73-32414  
Preparing oxidizer coated metal fuel particles  
[NASA-CASE-NPO-11975-1] c 28 N74-33209  
Method of protecting the surface of a substrate --- by applying aluminide coating  
[NASA-CASE-LEW-11696-1] c 37 N75-13261  
Duplex aluminized coatings  
[NASA-CASE-LEW-11696-2] c 26 N75-19408  
Meteoroid impact position locator aid for manned space station  
[NASA-CASE-LAR-10629-1] c 35 N75-33367  
Method of protecting a surface with a silicon-slurry/aluminide coating --- coatings for gas turbine engine blades and vanes  
[NASA-CASE-LEW-13343-1] c 27 N82-28441  
Silicon-slurry/aluminide coating --- protecting gas turbine engine vanes and blades  
[NASA-CASE-LEW-13343] c 26 N83-31795

## ALUMINUM COMPOUNDS

- Synthesis of dawsonites --- for use in fire extinguishing operations  
[NASA-CASE-ARC-11326-1] c 25 N83-33977  
Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118

## ALUMINUM OXIDES

- Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-1] c 37 N75-15992  
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-3] c 24 N79-25143  
Method and technique for installing light-weight, fragile, high-temperature fiber insulation  
[NASA-CASE-MS-16934-3] c 24 N84-16262

## ALUMINUM SILICATES

- Inorganic thermal control pigment Patent  
[NASA-CASE-XNP-02139] c 18 N71-24184

## AMBIENT TEMPERATURE

- High stability amplifier  
[NASA-CASE-GSC-12646-1] c 33 N83-34191

## AMIDES

- Preparation of heterocyclic block copolymer omega-diamidoximes  
[NASA-CASE-ARC-11060-1] c 27 N79-22300  
Method for preparing additive type polyimide prepreps  
[NASA-CASE-LAR-12054-2] c 27 N81-14078

## AMINES

- Direct synthesis of polymeric schiff bases from two amines and two aldehydes Patent  
[NASA-CASE-XMF-08655] c 06 N71-11239  
Synthesis of polymeric schiff bases by reaction of acetals and amine compounds Patent  
[NASA-CASE-XMF-08652] c 06 N71-11243  
Polyimide foam for the thermal insulation and fire protection  
[NASA-CASE-ARC-10464-1] c 27 N74-12812  
Automated analysis of oxidative metabolites  
[NASA-CASE-ARC-10469-1] c 25 N75-12086  
Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353  
Method of neutralizing the corrosive surface of amine-cured epoxy resins  
[NASA-CASE-GSC-12686-1] c 27 N83-34039

## AMINO ACIDS

- Amino acid analysis  
[NASA-CASE-NPO-12130-1] c 25 N75-14844

## AMMONIA

- Solid state chemical source for ammonia beam maser Patent  
[NASA-CASE-XGS-01504] c 16 N70-41578

## AMMONIUM NITRATES

- High performance ammonium nitrate propellant  
[NASA-CASE-NPO-14260-1] c 28 N79-28342

## AMMONIUM PERCHLORATES

- Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent  
[NASA-CASE-LAR-10173-1] c 27 N71-14090  
Process for the leaching of AP from propellant  
[NASA-CASE-NPO-14109-1] c 28 N80-23471

## AMORPHOUS MATERIALS

- Production of ultrapure amorphous metals utilizing acoustic cooling  
[NASA-CASE-NPO-15658-1] c 26 N83-18890

**AMPLIFICATION**

- Amplifier drift tester  
[NASA-CASE-XMS-05562-1] c 09 N69-39986
- Amplifier clamping circuit for horizon scanner Patent  
[NASA-CASE-XGS-01784] c 10 N71-20782
- Diversity receiving system with diversity phase lock Patent  
[NASA-CASE-XGS-01222] c 10 N71-20841
- Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11256
- High voltage transistor amplifier with constant current load  
[NASA-CASE-NPO-11023] c 09 N72-17155
- Independent gain and bandwidth control of a traveling wave maser  
[NASA-CASE-NPO-13801-1] c 36 N78-18410
- Pseudonoise code tracking loop  
[NASA-CASE-MS-16035-1] c 32 N81-15179
- Automatic level control circuit  
[NASA-CASE-KSC-11170-1] c 33 N83-36356

**AMPLIFIER DESIGN**

- Automatic gain control system  
[NASA-CASE-XMS-05307] c 09 N69-24330
- Bio-isolated dc operational amplifier --- for bioelectric measurements  
[NASA-CASE-ARC-10596-1] c 33 N74-21851
- High power metallic halide laser --- amplifying a copper chloride laser  
[NASA-CASE-NPO-14782-1] c 36 N82-28616
- Reactanceless bandpass amplifier  
[NASA-CASE-GSC-12788-1] c 33 N83-12333
- Measurement amplifier  
[NASA-CASE-MFS-25868-1] c 33 N84-32680

**AMPLIFIERS**

- Stable amplifier having a stable quiescent point Patent  
[NASA-CASE-XGS-02812] c 09 N71-19466
- Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent  
[NASA-CASE-XAC-05422] c 04 N71-23185
- High-gain, broadband traveling wave maser Patent  
[NASA-CASE-NPO-10548] c 16 N71-24831
- Vibrophonocardiograph Patent  
[NASA-CASE-XFR-07172] c 05 N71-27234
- Transient augmentation circuit for pulse amplifiers Patent  
[NASA-CASE-XNP-01068] c 10 N71-28739
- RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171
- Full wave modulator-demodulator amplifier apparatus --- for generating rectified output signal  
[NASA-CASE-FRC-10072-1] c 33 N74-14939
- Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-1213-1] c 35 N75-15014
- Reflected-wave maser --- low noise amplifier  
[NASA-CASE-NPO-13490-1] c 36 N76-31512
- Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360
- High stability amplifier  
[NASA-CASE-GSC-12646-1] c 33 N83-34191
- Low noise tuned amplifier  
[NASA-CASE-GSC-12567-1] c 33 N84-22887

**AMPLITUDE DISTRIBUTION ANALYSIS**

- System for monitoring signal amplitude ranges  
[NASA-CASE-XMS-04061-1] c 09 N69-39885
- Single or joint amplitude distribution analyzer Patent  
[NASA-CASE-XNP-01383] c 09 N71-10659
- Analog-to-digital converter  
[NASA-CASE-XNP-00477] c 08 N73-28045

**AMPLITUDE MODULATION**

- Signal generator  
[NASA-CASE-XNP-05612] c 09 N69-21468
- Demodulation system Patent  
[NASA-CASE-XAC-04030] c 10 N71-19472
- Amplitude modulated laser transmitter Patent  
[NASA-CASE-XMS-04269] c 16 N71-22895
- Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent  
[NASA-CASE-XAC-02807] c 09 N71-23021
- Phase multiplying electronic scanning system Patent  
[NASA-CASE-NPO-10302] c 10 N71-26142
- Signal path series step biased multidevice high efficiency amplifier Patent  
[NASA-CASE-GSC-10668-1] c 07 N71-28430
- Gated compressor, distortionless signal limiter  
[NASA-CASE-NPO-11820-1] c 32 N74-19788
- Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860
- Stark-effect modulation of CO<sub>2</sub> laser with NH<sub>2</sub>D  
[NASA-CASE-NPO-11945-1] c 36 N76-18427

- Adaptive reference voltage generator for firing angle control of line-commutated inverters  
[NASA-CASE-MFS-25215-1] c 33 N83-31953
- Chopped molecular beam multiplexing system  
[NASA-CASE-LAR-13174-1] c 72 N84-25431

**AMPLITUDES**

- Noise limiter Patent  
[NASA-CASE-NPO-10169] c 10 N71-24844
- A dual differential interferometer  
[NASA-CASE-LAR-12966-1] c 71 N83-12969
- Acoustic rotation control  
[NASA-CASE-NPO-15689-1] c 71 N84-23233

**AMPOULES**

- Ampoule sealing apparatus and process --- for housing a semiconductor growth charge under vacuum  
[NASA-CASE-LAR-12847-1] c 33 N83-16633
- Apparatus and method for heating a material in a transparent ampoule --- crystal growth  
[NASA-CASE-MFS-25436-1] c 27 N83-36220

**ANALGESIA**

- Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-2] c 52 N81-14613
- Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-1] c 52 N81-29764

**ANALOG CIRCUITS**

- Condition and condition duration indicator Patent  
[NASA-CASE-XMF-01097] c 10 N71-16058
- Automatic closed circuit television arc guidance control Patent  
[NASA-CASE-MFS-13046] c 07 N71-19433
- Electronic divider and multiplier using photocells Patent  
[NASA-CASE-XFR-05637] c 09 N71-19480
- Continuous Fourier transform method and apparatus --- for the analysis of simultaneous analog signal components  
[NASA-CASE-ARC-10466-1] c 60 N75-13539
- Electronic analog divider  
[NASA-CASE-LEW-11881-1] c 33 N77-17354
- Tuned analog network  
[NASA-CASE-GSC-12650-1] c 33 N84-14421

**ANALOG COMPUTERS**

- Analog spatial maneuver computer  
[NASA-CASE-GSC-10880-1] c 08 N72-11172

**ANALOG DATA**

- Data compression processor Patent  
[NASA-CASE-NPO-10068] c 08 N71-19288
- Wide range data compression system Patent  
[NASA-CASE-XGS-02612] c 08 N71-19435
- Analog Signal to Discrete Time Interval Converter (ASDTIC)  
[NASA-CASE-ERC-10048] c 09 N72-25251
- Digital plus analog output encoder  
[NASA-CASE-GSC-12115-1] c 62 N76-31946
- Velocity measurement system  
[NASA-CASE-MFS-23363-1] c 35 N78-32396

**ANALOG SIMULATION**

- Apparatus for simulating optical transmission links  
[NASA-CASE-GSC-11877-1] c 74 N76-18913

**ANALOG TO DIGITAL CONVERTERS**

- Analog-to-digital conversion system Patent  
[NASA-CASE-XAC-00404] c 08 N70-40125
- Analog to digital converter Patent  
[NASA-CASE-XLA-00670] c 08 N71-12501
- Nonlinear analog-to-digital converter Patent  
[NASA-CASE-XAC-04031] c 08 N71-18594
- Drift compensation circuit for analog to digital converter Patent  
[NASA-CASE-XNP-04780] c 08 N71-19687
- Pneumatic oscillator Patent  
[NASA-CASE-LEW-10345-1] c 10 N71-25899
- Analog signal integration and reconstruction system Patent  
[NASA-CASE-NPO-10344] c 10 N71-26544
- Analog to digital converter tester Patent  
[NASA-CASE-XLA-06713] c 14 N71-28991
- Wide range analog-to-digital converter with a variable gain amplifier  
[NASA-CASE-NPO-11018] c 08 N72-21200
- Analog-to-digital converter  
[NASA-CASE-MS-13110-1] c 08 N72-22163
- Analog-to-digital converter analyzing system  
[NASA-CASE-NPO-10560] c 08 N72-22166
- Digital control and information system  
[NASA-CASE-NPO-11016] c 08 N72-31226
- Counting digital filters  
[NASA-CASE-NPO-11821-1] c 08 N73-26175
- Analog-to-digital converter  
[NASA-CASE-XNP-00477] c 08 N73-28045
- Analog to digital converter  
[NASA-CASE-NPO-13385-1] c 33 N76-18345
- Analog to digital converter for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-3] c 60 N77-32731

- Electrochemical detection device --- for use in microbiology  
[NASA-CASE-LAR-11922-1] c 25 N79-24073
- Apparatus and method for tracking the fundamental frequency of an analog input signal  
[NASA-CASE-ARC-11367-1] c 33 N83-21238
- Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733

**ANALYZERS**

- Fluid phase analyzer Patent  
[NASA-CASE-NPO-10691] c 14 N71-26199
- Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754
- Micrometeoroid analyzer  
[NASA-CASE-ARC-10443-1] c 14 N73-20477
- NDIR gas analyzer based on absorption modulation ratios for known and unknown samples  
[NASA-CASE-ARC-10802-1] c 35 N75-30502
- Cosmic dust analyzer  
[NASA-CASE-MS-13802-2] c 35 N76-15431
- Optically selective, acoustically resonant gas detecting transducer  
[NASA-CASE-ARC-10639-1] c 35 N78-13400

**ANEMOMETERS**

- Anemometer with braking mechanism Patent  
[NASA-CASE-XMF-05224] c 14 N71-23726
- Maxometers (peak wind speed anemometers)  
[NASA-CASE-MFS-20916] c 14 N73-25460
- Radionuclide counting technique for measuring wind velocity and direction  
[NASA-CASE-LAR-12971-1] c 47 N84-28292

**ANGIOGRAPHY**

- Contour detector and data acquisition system for the left ventricular outline  
[NASA-CASE-ARC-10985-1] c 52 N79-10724

**ANGLE OF ATTACK**

- Angle detector  
[NASA-CASE-ARC-11036-1] c 35 N78-32395
- Aerodynamic side-force alleviator means  
[NASA-CASE-LAR-12326-1] c 02 N81-14968

**ANGLES (GEOMETRY)**

- Internal flare angle gauge Patent  
[NASA-CASE-XMF-04415] c 14 N71-24693
- Method for generating ultra-precise angles Patent  
[NASA-CASE-XGS-04173] c 19 N71-26674
- Rotating raster generator  
[NASA-CASE-FRC-10071-1] c 32 N74-20813

**ANGULAR ACCELERATION**

- Angular accelerometer Patent  
[NASA-CASE-XMS-05936] c 14 N70-41682

**ANGULAR CORRELATION**

- Device for determining relative angular position between a spacecraft and a radiation emitting celestial body  
[NASA-CASE-GSC-11444-1] c 14 N73-28490

**ANGULAR DISTRIBUTION**

- Noncontacting method for measuring angular deflection  
[NASA-CASE-LAR-12178-1] c 74 N80-21138
- Portable 90 deg proof loading device  
[NASA-CASE-MS-20250-1] c 37 N83-29707

**ANGULAR MOMENTUM**

- Stretch de-spin mechanism Patent  
[NASA-CASE-XGS-00619] c 30 N70-40016
- Rim inertial measuring system  
[NASA-CASE-LAR-12052-1] c 18 N81-29152

**ANGULAR RESOLUTION**

- Angular measurement system Patent  
[NASA-CASE-XMF-00447] c 14 N70-33179

**ANGULAR VELOCITY**

- Angular position and velocity sensing apparatus Patent  
[NASA-CASE-XGS-05680] c 14 N71-17585
- Speed control device for a heavy duty shaft --- solar sails for spacecraft propulsion  
[NASA-CASE-NPO-14170-1] c 37 N81-15364
- Interferometric angle monitor  
[NASA-CASE-GSC-12614-1] c 74 N83-32577

**ANHYDRIDES**

- Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides  
[NASA-CASE-MFS-22356-1] c 23 N75-30256
- Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides --- flame retardant foams  
[NASA-CASE-ARC-11107-1] c 25 N80-16116
- Prepolymer dianhydrides  
[NASA-CASE-NPO-13899-1] c 27 N80-32515
- The 1 - (dialkoxyphosphonyl)methyl - 2,4- and - 2,6- dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076
- Fire and heat resistant laminating resins based on maleimido substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697

**ANILINE**

- Process for preparation of dianilinosilanes Patent  
[NASA-CASE-XMF-06409] c 06 N71-23230

# ANIMALS

## ANIMALS

Automatic real-time pair-feeding system for animals  
[NASA-CASE-ARC-10302-1] c 51 N74-15778  
Tread drum for animals --- having an electrical shock station  
[NASA-CASE-ARC-10917-1] c 51 N78-27733

## ANISOTROPIC MEDIA

Hybrid composite laminate structures  
[NASA-CASE-LEW-12118-1] c 24 N77-27188

## ANNEALING

Recovery of radiation damaged solar cells through thermal annealing  
[NASA-CASE-XGS-04047-2] c 03 N72-11062  
CDS solid state phase insensitive ultrasonic transducer --- annealing dadmium sulfide crystals  
[NASA-CASE-LAR-12304-1] c 35 N80-20559

## ANNULAR NOZZLES

Rocket thrust chamber Patent  
[NASA-CASE-XLE-00145] c 28 N70-36806  
Annular slit colloid thruster Patent  
[NASA-CASE-GSC-10709-1] c 28 N71-25213

## ANNULAR PLATES

Annular supersonic decelerator or drogue Patent  
[NASA-CASE-XLE-00222] c 02 N70-37939  
Multiple plate hydrostatic viscous damper  
[NASA-CASE-LEW-12445-1] c 37 N81-22360

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Shaft transducer having dc output proportional to angular velocity  
[NASA-CASE-NPO-15706-1] c 35 N84-28017

## ANODES

Heat activated cell with alkali anode and alkali salt electrolyte Patent  
[NASA-CASE-LEW-11358] c 03 N71-26084  
Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions  
[NASA-CASE-NPO-11806-1] c 44 N74-19693  
Resistive anode image converter  
[NASA-CASE-HQN-10876-1] c 33 N76-27473  
Rechargeable battery which combats shape change of the zinc anode  
[NASA-CASE-HQN-10862-1] c 44 N76-29699  
Arc control in compact arc lamps  
[NASA-CASE-NPO-10870-1] c 33 N77-22386  
Multiple anode arc lamp system  
[NASA-CASE-NPO-10857-1] c 33 N80-14330  
Ion sputter textured graphite --- anode collector plates in electron tube devices  
[NASA-CASE-LEW-12919-1] c 24 N83-10117  
Ring-cusp ion thruster with shell anode  
[NASA-CASE-LEW-13881-1] c 72 N83-21903

## ANODIC COATINGS

Temperature reducing coating for metals subject to flame exposure Patent  
[NASA-CASE-XLE-00035] c 33 N71-29151  
Anode for ion thruster  
[NASA-CASE-LEW-12048-1] c 20 N77-20162  
Variable anodic thermal control coating  
[NASA-CASE-LAR-12719-1] c 44 N83-34449

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Aircraft lifter  
[NASA-CASE-LAR-12518-1] c 06 N84-32383

## ANTENNA ARRAYS

Antenna system using parasitic elements and two driven elements at 90 deg angle fed 180 deg out of phase Patent  
[NASA-CASE-XLA-00414] c 07 N70-38200  
Multiple input radio receiver Patent  
[NASA-CASE-XLA-00901] c 07 N71-10775  
Horn feed having overlapping apertures Patent  
[NASA-CASE-GSC-10452] c 07 N71-12396  
Tracking antenna system Patent  
[NASA-CASE-GSC-10553-1] c 07 N71-19854  
Radar antenna system for acquisition and tracking Patent  
[NASA-CASE-XMS-09610] c 07 N71-24625  
Antenna array phase quadrature tracking system Patent  
[NASA-CASE-MSC-12205-1] c 07 N71-27056  
Antenna array at focal plane of reflector with coupling network for beam switching Patent  
[NASA-CASE-GSC-10220-1] c 07 N71-27233  
Triaxial antenna Patent  
[NASA-CASE-XGS-02290] c 07 N71-28809  
Virtual wall slot circularly polarized planar array antenna  
[NASA-CASE-NPO-10301] c 07 N72-11148  
Stacked array of omnidirectional antennas  
[NASA-CASE-LAR-10545-1] c 09 N72-21244  
Circularly polarized antenna  
[NASA-CASE-ERC-10214] c 09 N72-31235  
Phase control circuits using frequency multiplications for phased array antennas  
[NASA-CASE-ERC-10285] c 10 N73-16206

Plural beam antenna  
[NASA-CASE-GSC-11013-1] c 09 N73-19234  
Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860  
Position determination systems --- using orbital antenna scan of celestial bodies  
[NASA-CASE-MSC-12593-1] c 17 N76-21250  
Thin conformal antenna array for microwave power conversions  
[NASA-CASE-NPO-13886-1] c 32 N78-24391  
RF beam center location method and apparatus for power transmission system  
[NASA-CASE-NPO-13821-1] c 44 N78-28594  
Phased array antenna control  
[NASA-CASE-MSC-14939-1] c 32 N79-11264  
Phase conjugation method and apparatus for an active retrodirective antenna array  
[NASA-CASE-NPO-13641-1] c 32 N79-24210  
Scannable beam forming interferometer antenna array system  
[NASA-CASE-GSC-12365-1] c 32 N80-28578  
Frequency translating phase conjugation circuit for active retrodirective antenna array --- microwave transmission  
[NASA-CASE-NPO-14536-1] c 32 N81-14185  
Coaxial phased array antenna  
[NASA-CASE-MSC-16800-1] c 32 N81-14187  
Baseband signal combiner for large aperture antenna array  
[NASA-CASE-NPO-14641-1] c 32 N81-29308  
Cavity-backed, micro-strip dipole antenna array  
[NASA-CASE-MSC-18606-1] c 32 N82-11336  
Spiral slotted phased antenna array  
[NASA-CASE-MSC-18532-1] c 32 N82-27558  
Method and apparatus for self-calibration and phasing of array antenna  
[NASA-CASE-NPO-15920-1] c 32 N82-33593  
Electronic con scanning spacecraft communication system  
[NASA-CASE-NPO-15899-1] c 32 N83-19970

## ANTENNA COMPONENTS

Digital servo controller --- for rotating antenna shaft  
[NASA-CASE-KSC-10769-1] c 33 N74-29556  
Faraday rotation measurement method and apparatus  
[NASA-CASE-NPO-14839-1] c 35 N82-15381

## ANTENNA COUPLERS

Dual band combiner for horn antenna  
[NASA-CASE-NPO-14519-1] c 32 N80-23524

## ANTENNA DESIGN

Low noise single aperture multimode monopulse antenna feed system Patent  
[NASA-CASE-XNP-01735] c 07 N71-22750  
Nose cone mounted heat resistant antenna Patent  
[NASA-CASE-XMS-04312] c 07 N71-22984  
Antenna array phase quadrature tracking system Patent  
[NASA-CASE-MSC-12205-1] c 07 N71-27056  
Unfurlable structure including coiled strips thrust launched upon tension release Patent  
[NASA-CASE-HQN-00937] c 07 N71-28979  
Antenna design for surface wave suppression Patent  
[NASA-CASE-XLA-10772] c 07 N71-28980  
Target acquisition antenna  
[NASA-CASE-GSC-10064-1] c 10 N72-22235  
Collapsible high gain antenna  
[NASA-CASE-KSC-10392] c 07 N73-26117  
Dish antenna having switchable beamwidth --- with truncated concave ellipsoid subreflector  
[NASA-CASE-GSC-11760-1] c 33 N75-19516  
Horn antenna having V-shaped corrugated slots  
[NASA-CASE-LAR-11112-1] c 32 N76-15330  
Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector  
[NASA-CASE-NPO-13568-1] c 32 N76-21365  
Furlable antenna --- antenna design  
[NASA-CASE-NPO-13553-1] c 33 N76-32457  
Collapsible corrugated horn antenna  
[NASA-CASE-LAR-11745-1] c 32 N80-29539  
Multiple band circularly polarized microstrip antenna  
[NASA-CASE-MSC-18334-1] c 32 N80-32604  
Spiral slotted phased antenna array  
[NASA-CASE-MSC-18532-1] c 32 N82-27558

## ANTENNA FEEDS

Multi-feed cone Cassegrain antenna Patent  
[NASA-CASE-NPO-10539] c 07 N71-11285  
Horn feed having overlapping apertures Patent  
[NASA-CASE-GSC-10452] c 07 N71-12396  
Target acquisition antenna  
[NASA-CASE-GSC-10064-1] c 10 N72-22235  
Composite antenna feed  
[NASA-CASE-GSC-11046-1] c 07 N73-28013  
Low loss dichroic plate  
[NASA-CASE-NPO-13171-1] c 32 N74-11000  
High efficiency multifrequency feed  
[NASA-CASE-GSC-11909] c 32 N74-20863

Single frequency, two feed dish antenna having switchable beamwidth  
[NASA-CASE-GSC-11968-1] c 32 N76-15329  
Reflex feed system for dual frequency antenna with frequency cutoff means  
[NASA-CASE-NPO-14022-1] c 32 N78-31321  
Antenna feed system for receiving circular polarization and transmitting linear polarization  
[NASA-CASE-NPO-14362-1] c 32 N80-16261  
Multifrequency broadband polarized horn antenna  
[NASA-CASE-NPO-14588-1] c 32 N81-25278  
Microwave switching power divider --- antenna feeds  
[NASA-CASE-GSC-12420-1] c 33 N82-16340  
Method and apparatus for self-calibration and phasing of array antenna  
[NASA-CASE-NPO-15920-1] c 32 N82-33593  
Focal axis resolver for offset reflector antennas  
[NASA-CASE-GSC-12630-1] c 33 N83-36355

## ANTENNA RADIATION PATTERNS

Broadband choke for antenna structure  
[NASA-CASE-XMS-05303] c 07 N69-27462  
Dual mode horn antenna Patent  
[NASA-CASE-XNP-01057] c 07 N71-15907  
Electronic scanning of 2-channel monopulse patterns Patent  
[NASA-CASE-GSC-10299-1] c 09 N71-24804  
High impact antenna Patent  
[NASA-CASE-NPO-10231] c 07 N71-26101  
Triaxial antenna Patent  
[NASA-CASE-XGS-02290] c 07 N71-28809  
Lightning tracking system  
[NASA-CASE-KSC-10729-1] c 09 N73-32110  
Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector  
[NASA-CASE-NPO-13568-1] c 32 N76-21365  
Coaxial phased array antenna  
[NASA-CASE-MSC-16800-1] c 32 N81-14187  
Method and apparatus for self-calibration and phasing of array antenna  
[NASA-CASE-NPO-15920-1] c 32 N82-33593

## ANTENNAS

Self-erecting reflector Patent  
[NASA-CASE-XGS-09190] c 31 N71-16102  
High impact antenna Patent  
[NASA-CASE-NPO-10231] c 07 N71-26101  
Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27191  
Conical reflector antenna  
[NASA-CASE-NPO-10303] c 07 N72-22127  
Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N82-26568  
Articulated joint for deployable structures  
[NASA-CASE-NPO-16038-1] c 37 N83-20157  
Antenna grout replacement system  
[NASA-CASE-NPO-15202-1] c 27 N83-34043  
Latching mechanism for deployable-restowable columns  
[NASA-CASE-LAR-13169-1] c 37 N84-25063

## ANTIBIOTICS

Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N79-14750

## ANTIFRICTION BEARINGS

Hybrid lubrication system and bearing Patent  
[NASA-CASE-NPO-01641] c 15 N71-22997  
Rolling element bearings Patent  
[NASA-CASE-XLE-09527-2] c 15 N71-26189  
High speed hybrid bearing comprising a fluid bearing and a rolling bearing connected in series  
[NASA-CASE-LEW-11152-1] c 15 N73-32359  
Production of hollow components for rolling element bearings by diffusion welding  
[NASA-CASE-LEW-11026-1] c 15 N73-33383  
Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications  
[NASA-CASE-LEW-11930-4] c 24 N79-17916  
Method of making bearing material  
[NASA-CASE-LEW-11930-3] c 24 N80-33482

## ANTIGRAVITY

Anti-gravity device  
[NASA-CASE-MFS-22758-1] c 70 N75-26789

## ANTI-HISTAMINICS

Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-2] c 52 N81-14613  
Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-1] c 52 N81-29764

## ANTIOXIDANTS

Stabilized unsaturated polyesters  
[NASA-CASE-NPO-16103-1] c 27 N84-32530

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## ANTIREFLECTION COATINGS

- Silicon nitride coated, plastic covered solar cell  
[NASA-CASE-LEW-11498-1] c 44 N77-14580  
Broadband optical radiation detector  
[US-PATENT-4,262,198] c 74 N83-19597

## ANVILS

- Apparatus for making diamonds  
[NASA-CASE-MFS-20698] c 15 N72-20446

## APERTURES

- Focussing system for an ion source having apertured electrodes Patent  
[NASA-CASE-XNP-03332] c 09 N71-10618  
Threadless fastener apparatus Patent  
[NASA-CASE-XFR-05302] c 15 N71-23254  
On-film optical recording of camera lens settings  
[NASA-CASE-MSC-12383-1] c 14 N73-26431  
Method of forming aperture plate for electron microscope  
[NASA-CASE-ARC-10448-2] c 74 N75-12732  
Method of making an apertured casting --- using duplicate mold  
[NASA-CASE-LEW-11169-1] c 37 N76-23570  
Electron microscope aperture system  
[NASA-CASE-ARC-10448-3] c 35 N77-14408  
Heat reflecting field stop  
[NASA-CASE-LAR-12443-1] c 74 N82-19030

## APOLLO PROJECT

- Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012

## APOLLO SPACECRAFT

- Energy absorbing structure Patent Application  
[NASA-CASE-MSC-12279-1] c 15 N70-35679  
Low onset rate energy absorber  
[NASA-CASE-MSC-12279] c 15 N72-17450

## APPLICATIONS OF MATHEMATICS

- Apparatus for computing square roots Patent  
[NASA-CASE-XGS-04768] c 08 N71-19437

## APPROACH

- Spectrally balanced chromatic landing approach lighting system  
[NASA-CASE-ARC-10990-1] c 04 N82-16059

## AQUATIC PLANTS

- Method for treating wastewater using microorganisms and vascular aquatic plants  
[NASA-CASE-NSTL-10] c 45 N84-12654

## AQUEOUS SOLUTIONS

- Anti-fog composition --- for prevention of fogging on surfaces such as space helmet visors and windshields  
[NASA-CASE-MSC-13530-2] c 23 N75-14834  
Automated system for identifying traces of organic chemical compounds in aqueous solutions  
[NASA-CASE-NPO-13063-1] c 25 N76-18245  
Method for separating biological cells --- suspended in aqueous polymer systems  
[NASA-CASE-MFS-23883-1] c 51 N80-16715  
Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MSC-18172-1] c 26 N80-19237  
Method of cross-linking polyvinyl alcohol and other water soluble resins  
[NASA-CASE-LEW-13103-1] c 27 N80-32516  
Electrophotolysis oxidation system for measurement of organic concentration in water  
[NASA-CASE-MSC-16497-1] c 25 N82-12166  
Liquid immersion apparatus for minute articles  
[NASA-CASE-MFS-25363-1] c 37 N82-12441  
Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371  
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[NASA-CASE-NPO-15304-1] c 25 N83-31743

## ARC DISCHARGES

- Device for preventing high voltage arcing in electron beam welding Patent  
[NASA-CASE-XMF-08522] c 15 N71-19486  
Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent  
[NASA-CASE-XLA-03103] c 25 N71-21693  
Method and apparatus for nondestructive testing --- using high frequency arc discharges  
[NASA-CASE-MFS-21233-1] c 38 N74-15395  
Sustained arc ignition system  
[NASA-CASE-LEW-12444-1] c 33 N77-28385

## ARC HEATING

- Electric arc heater Patent  
[NASA-CASE-XLA-00330] c 33 N70-34540  
Electric arc device for heating gases Patent  
[NASA-CASE-XAC-00319] c 25 N70-41628  
Annular arc accelerator shock tube  
[NASA-CASE-NPO-13528-1] c 09 N77-10071

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- Magneto-plasma-dynamic arc thruster  
[NASA-CASE-LEW-11180-1] c 25 N73-25760

## ARC LAMPS

- Starting circuit for vapor lamps and the like Patent  
[NASA-CASE-XNP-01058] c 09 N71-12540

Compact, high intensity arc lamp with internal magnetic field producing means

- [NASA-CASE-NPO-11510-1] c 33 N77-21315  
Depressurization of arc lamps  
[NASA-CASE-NPO-10790-1] c 33 N77-21316  
Arc control in compact arc lamps  
[NASA-CASE-NPO-10870-1] c 33 N77-22386  
Purging means and method for Xenon arc lamps  
[NASA-CASE-NPO-11978] c 31 N78-17238  
Multiple anode arc lamp system  
[NASA-CASE-NPO-10857-1] c 33 N80-14330

## ARC SPRAYING

- Arc spray fabrication of metal matrix composite monolayer --- high temperature fiber-reinforced superalloy composites  
[NASA-CASE-LEW-13828-1] c 24 N84-15203  
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[NASA-CASE-LEW-13837-2] c 24 N84-22696

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- Spectral method for monitoring atmospheric contamination of inert-gas welding shields Patent  
[NASA-CASE-XMF-02039] c 15 N71-15871  
Automatic closed circuit television arc guidance control Patent  
[NASA-CASE-MFS-13046] c 07 N71-19433  
Device for preventing high voltage arcing in electron beam welding Patent  
[NASA-CASE-XMF-08522] c 15 N71-19486  
Welding skate with computerized control Patent  
[NASA-CASE-XMF-07069] c 15 N71-23815  
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[NASA-CASE-MSC-19095-1] c 37 N75-19683

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- Foldable construction block  
[NASA-CASE-MSC-12233-2] c 32 N73-13921

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- Massively parallel processor computer  
[NASA-CASE-GSC-12223-1] c 60 N83-25378  
Distributed multipoint memory architecture  
[NASA-CASE-NPO-15342-1] c 60 N83-32342  
High dynamic global positioning system receiver  
[NASA-CASE-NPO-16171-1-CU] c 04 N84-12151

## AREA

- A new solar cell design for improved open circuit voltage and high efficiency  
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[NASA-CASE-MFS-25302-1] c 33 N83-28319
- AVIONICS**
- Aircraft control position indicator  
[NASA-CASE-LAR-12984-1] c 06 N84-20522
- AXES (REFERENCE LINES)**
- Moment of inertia test fixture Patent  
[NASA-CASE-XGS-01023] c 14 N71-22992
- Universal restrainer and joint Patent  
[NASA-CASE-XNP-02278] c 15 N71-28951
- Focal axis resolver for offset reflector antennas  
[NASA-CASE-GSC-12630-1] c 33 N83-36355
- AXES OF ROTATION**
- Three axis controller Patent  
[NASA-CASE-XFR-00181] c 21 N70-33279
- Proportional controller Patent  
[NASA-CASE-XAC-03392] c 03 N70-41954
- Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688
- Controllers Patent  
[NASA-CASE-XMS-07487] c 15 N71-23255
- Aircraft body-axis rotation measurement system  
[NASA-CASE-FRC-11043-1] c 06 N83-33882
- Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-2] c 37 N84-28081
- AXIAL COMPRESSION LOADS**
- Impact monitoring apparatus  
[NASA-CASE-MSC-15626-1] c 14 N72-25411
- Compression test apparatus  
[NASA-CASE-MSC-18723-1] c 35 N83-21312
- AXIAL FLOW TURBINES**
- Multi-stage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00170] c 15 N70-36412
- Multi-stage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00085] c 28 N70-39895
- Method and turbine for extracting kinetic energy from a stream of two-phase fluid  
[NASA-CASE-NPO-14130-1] c 34 N79-20335
- AXIAL LOADS**
- Locking device with rolling detents Patent  
[NASA-CASE-XMF-01371] c 15 N70-41829
- Method for measuring biaxial stress in a body subjected to stress inducing loads  
[NASA-CASE-MFS-23299-1] c 39 N77-28511
- AXIAL STRESS**
- Axially and radially controllable magnetic bearing  
[NASA-CASE-GSC-11551-1] c 37 N76-18459
- Method for measuring biaxial stress in a body subjected to stress inducing loads  
[NASA-CASE-MFS-23299-1] c 39 N77-28511
- AZIMUTH**
- Optical tracking mount Patent  
[NASA-CASE-MFS-14017] c 14 N71-26627
- Long range laser traversing system  
[NASA-CASE-GSC-11262-1] c 36 N74-21091
- Magnetic heading reference  
[NASA-CASE-LAR-11387-2] c 04 N77-19056
- Aircraft body-axis rotation measurement system  
[NASA-CASE-FRC-11043-1] c 06 N83-33882
- AZINES**
- Azine polymers and process for preparing the same Patent  
[NASA-CASE-XMF-08656] c 06 N71-11242
- Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21156
- Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N76-32315
- Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby  
[NASA-CASE-LEW-12053-2] c 27 N79-28307
- Perfluoroalkyl polytriazines containing pendent iododifluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016
- Process for the preparation of fluorine containing crosslinked elastomeric polytriazine and product so produced  
[NASA-CASE-ARC-11248-1] c 27 N81-17259
- AZO COMPOUNDS**
- Molding process for imidazopyrrolone polymers  
[NASA-CASE-LAR-10547-1] c 31 N74-13177
- B**
- BACK INJURIES**
- Spine immobilization apparatus  
[NASA-CASE-ARC-11167-1] c 52 N81-25662
- BACKGROUND NOISE**
- Electronic background suppression method and apparatus for a field scanning sensor  
[NASA-CASE-XGS-05211] c 07 N69-39980
- BACKGROUND RADIATION**
- Method and apparatus for background signal reduction in opto-acoustic absorption measurement  
[NASA-CASE-NPO-13683-1] c 35 N77-14411
- BACKSCATTERING**
- Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent  
[NASA-CASE-XGS-02608] c 07 N70-41678
- Mossbauer spectrometer radiation detector  
[NASA-CASE-LAR-11155-1] c 35 N74-15091
- BACKUPS**
- Flexible back-up bar Patent  
[NASA-CASE-XMF-00722] c 15 N70-40204
- Inherent redundancy electric heater  
[NASA-CASE-MFS-21462-1] c 33 N74-14935
- Improved impact tolerant material  
[NASA-CASE-LAR-12887-1] c 24 N84-20649
- BACKWARD WAVES**
- Ladder supported ring bar circuit  
[NASA-CASE-LEW-13570-1] c 33 N84-16452
- Dielectric based submillimeter backward wave oscillator circuit  
[NASA-CASE-LEW-13736-1] c 33 N84-27974
- BACTERIA**
- Decontamination of petroleum products Patent  
[NASA-CASE-XNP-03835] c 06 N71-23499
- Bacterial contamination monitor  
[NASA-CASE-GSC-10879-1] c 14 N72-25413
- Method of detecting and counting bacteria in body fluids  
[NASA-CASE-GSC-11092-2] c 04 N73-27052
- Lyophilized spore dispenser  
[NASA-CASE-LAR-10544-1] c 37 N74-13178
- Method of detecting and counting bacteria  
[NASA-CASE-GSC-11917-2] c 51 N76-29891
- Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N79-14750
- Method and apparatus for eliminating luminol interference material  
[NASA-CASE-MSC-16260-1] c 51 N80-16714
- Rapid, quantitative determination of bacteria in water — adenosine triphosphate  
[NASA-CASE-GSC-12158-1] c 51 N83-27569
- BACTERIOLOGY**
- Bacteria detection instrument and method  
[NASA-CASE-GSC-11533-1] c 14 N73-13435
- Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794

Automated single-slide staining device  
[NASA-CASE-LAR-11649-1] c 51 N77-27677

**BAFFLES**  
Light radiation direction indicator with a baffle of two parallel grids  
[NASA-CASE-XNP-03930] c 14 N69-24331  
Anti-glare improvement for optical imaging systems Patent  
[NASA-CASE-NPO-10337] c 14 N71-15604  
Flexible ring slosh damping baffle Patent  
[NASA-CASE-LAR-10317-1] c 32 N71-16103  
Buoyant anti-slosh system Patent  
[NASA-CASE-XLA-04605] c 32 N71-16106  
Floating baffle to improve efficiency of liquid transfer from tanks  
[NASA-CASE-KSC-10639] c 15 N73-26472  
System for the measurement of ultra-low stray light levels --- determining the adequacy of large space telescope systems  
[NASA-CASE-MFS-23513-1] c 74 N79-11865  
Pressure letdown method and device for coal conversion systems  
[NASA-CASE-NPO-15100-1] c 44 N84-14583  
Optical system with reflective baffles  
[NASA-CASE-ARC-11502-1] c 74 N84-26400

**BAGS**  
Relief container  
[NASA-CASE-XMS-06761] c 05 N69-23192  
Gas diffusion liquid storage bag and method of use for storing blood  
[NASA-CASE-NPO-13930-1] c 52 N79-14749

**BAKING**  
Bakeable McLeod gauge  
[NASA-CASE-XGS-01293-1] c 35 N79-33450  
A method and technique for installing light-weight fragile, high-temperature fibre insulation  
[NASA-CASE-MSC-18934-3] c 24 N82-26387

**BALANCE**  
Thermo-protective device for balances Patent  
[NASA-CASE-XAC-00648] c 14 N70-40400  
Device for monitoring a change in mass in varying gravimetric environments  
[NASA-CASE-MFS-21556-1] c 35 N74-26945

**BALANCING**  
Automatic balancing device Patent  
[NASA-CASE-LAR-10774] c 10 N71-13545  
Force-balanced, throttle valve Patent  
[NASA-CASE-NPO-10808] c 15 N71-27432  
Lift balancing device  
[NASA-CASE-LAR-10348-1] c 11 N73-12264

**BALL BEARINGS**  
Two component bearing Patent  
[NASA-CASE-XLA-00013] c 15 N71-29136  
High speed rolling element bearing  
[NASA-CASE-LEW-10856-1] c 15 N72-22490  
Low mass rolling element for bearings  
[NASA-CASE-LEW-11087-1] c 15 N73-30458  
Hollow rolling element bearings  
[NASA-CASE-LEW-11087-3] c 37 N74-21064  
Drilled ball bearing with a one piece anti-tipping cage assembly  
[NASA-CASE-LEW-11925-1] c 37 N75-31446  
Spherical bearing --- to reduce vibration effects  
[NASA-CASE-MFS-23447-1] c 37 N79-11404  
Apparatus and method for inspecting a bearing ball --- eddy current inspection technique  
[NASA-CASE-MFS-25833-1] c 35 N83-21316

**BALLAST (MASS)**  
Life raft stabilizer  
[NASA-CASE-MSC-12393-1] c 02 N73-26006

**BALLASTS (IMPEDANCES)**  
Apparatus for ballasting high frequency transistors  
[NASA-CASE-XGS-05003] c 09 N69-24318  
Direct current ballast circuit for metal halide lamp  
[NASA-CASE-MSC-18407-1] c 33 N82-24427

**BALLISTICS**  
Fiber modified polyurethane foam for ballistic protection  
[NASA-CASE-ARC-10714-1] c 27 N76-15310

**BALLOON SOUNDING**  
Apparatus for controlling the temperature of balloon-borne equipment  
[NASA-CASE-GSC-11620-1] c 34 N74-23039

**BALLOONS**  
Hot air balloon deceleration and recovery system Patent  
[NASA-CASE-XLA-06824-2] c 02 N71-11037  
Inflation system for balloon type satellites Patent  
[NASA-CASE-XGS-03351] c 31 N71-16081  
System for stabilizing torque between a balloon and gondola  
[NASA-CASE-GSC-11077-1] c 02 N73-13008

**BALLS**  
Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073

Quartz ball valve  
[NASA-CASE-NPO-14473-1] c 37 N80-23654

**BANDPASS FILTERS**  
Helical coaxial resonator RF filter  
[NASA-CASE-XGS-02816] c 07 N69-24323  
Compensating bandwidth switching transients in an amplifier circuit Patent  
[NASA-CASE-XNP-01107] c 10 N71-28859  
Signal-to-noise ratio determination circuit  
[NASA-CASE-GSC-11239-1] c 10 N73-25241  
High-Q bandpass resonators utilizing bandstop resonator pairs  
[NASA-CASE-GSC-10990-1] c 09 N73-26195  
Dichroic plate --- as bandpass filters  
[NASA-CASE-NPO-13506-1] c 35 N76-15435  
Notch filter  
[NASA-CASE-MFS-23303-1] c 32 N77-18307  
Adaptive polarization separation  
[NASA-CASE-LAR-12196-1] c 33 N81-26358  
Smoothing filter for digital to analog conversion  
[NASA-CASE-FRC-11025-1] c 33 N82-24417  
Reactanceless bandpass amplifier  
[NASA-CASE-GSC-12788-1] c 33 N83-12333  
Tuned analog network  
[NASA-CASE-GSC-12650-1] c 33 N84-14421  
Low noise tuned amplifier  
[NASA-CASE-GSC-12567-1] c 33 N84-22887  
Multispectral linear array multiband selection device  
[NASA-CASE-GSC-12911-1] c 35 N84-25016

**BANDWIDTH**  
Narrow bandwidth video Patent  
[NASA-CASE-XMS-06740-1] c 07 N71-26579  
Self-tuning bandpass filter  
[NASA-CASE-ARC-10264-1] c 09 N73-20231  
Turnstile and flared cone UHF antenna  
[NASA-CASE-LAR-10970-1] c 33 N76-14372  
Independent gain and bandwidth control of a traveling wave maser  
[NASA-CASE-NPO-13801-1] c 36 N78-18410  
Dual band combiner for horn antenna  
[NASA-CASE-NPO-14519-1] c 32 N80-23524

**BARIIUM**  
Barium release system  
[NASA-CASE-LAR-10670-1] c 06 N73-30097

**BARIIUM COMPOUNDS**  
Ion thruster cathode  
[NASA-CASE-XLE-07087] c 06 N69-39889

**BARIIUM FLUORIDES**  
Method of making self lubricating fluoride-metal composite materials Patent  
[NASA-CASE-XLE-08511-2] c 18 N71-16105

**BARIIUM ION CLOUDS**  
Rocket having barium release system to create ion clouds in the upper atmosphere  
[NASA-CASE-LAR-10670-2] c 15 N74-27360

**BARIIUM TITANATES**  
Semiconductor-ferroelectric memory device  
[NASA-CASE-ERC-10307] c 08 N72-21198

**BARRIER LAYERS**  
Schottky barrier solar cell  
[NASA-CASE-NPO-13689-2] c 44 N81-29525  
Submillimeter wave Schottky barrier diode with low series resistance and low noise  
[NASA-CASE-NPO-15935-1] c 33 N83-12334

**BARRIERS**  
Short range laser obstacle detector --- for surface vehicles using laser diode array  
[NASA-CASE-NPO-11856-1] c 36 N74-15145

**BARS**  
Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303

**BASES (CHEMICAL)**  
Thermal control coating Patent  
[NASA-CASE-XLA-01995] c 18 N71-23047

**BATTERY CHARGERS**  
Method and apparatus for battery charge control Patent  
[NASA-CASE-XGS-05432] c 03 N71-19438  
Electrochemical coulometer and method of forming same Patent  
[NASA-CASE-XGS-05434] c 03 N71-20491  
Coulometer and third electrode battery charging circuit Patent  
[NASA-CASE-GSC-10487-1] c 03 N71-24719  
Method and apparatus for conditioning of nickel-cadmium batteries  
[NASA-CASE-MFS-23270-1] c 44 N78-25531  
Chemically rechargeable battery  
[NASA-CASE-NPO-16024-1] c 44 N84-23020

**BAYARD-ALPERT IONIZATION GAGES**  
Ionization vacuum gauge with all but the end of the ion collector shielded Patent  
[NASA-CASE-XLA-07424] c 14 N71-18482

**BEADS**  
Rotary bead dropper and selector for testing micrometeorite detectors Patent  
[NASA-CASE-XGS-03304] c 09 N71-22988

**BEAM LEADS**  
Integrated circuit package with lead structure and method of preparing the same  
[NASA-CASE-MFS-21374-1] c 33 N74-12951

**BEAM SPLITTERS**  
Optical range finder having nonoverlapping complete images  
[NASA-CASE-MSC-12105-1] c 14 N72-21409  
Laser extensometer  
[NASA-CASE-MFS-19259-1] c 36 N78-14380  
Over-under double-pass interferometer  
[NASA-CASE-NPO-13999-1] c 35 N78-18395  
Method and apparatus for splitting a beam of energy --- optical communication  
[NASA-CASE-GSC-12083-1] c 73 N78-32848  
Interferometer  
[NASA-CASE-NPO-14502-1] c 74 N81-17888  
Collimated beam manifold with the number of output beams variable at a given output angle  
[NASA-CASE-MFS-25312-1] c 74 N83-17305  
Dual-beam skin friction interferometer  
[NASA-CASE-ARC-11354-1] c 74 N83-21949  
High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898

**BEAM SWITCHING**  
Electronic beam switching commutator Patent  
[NASA-CASE-XGS-01451] c 09 N71-10677  
Antenna array at focal plane of reflector with coupling network for beam switching Patent  
[NASA-CASE-GSC-10220-1] c 07 N71-27233  
Dish antenna having switchable beamwidth --- with truncated concave ellipsoid subreflector  
[NASA-CASE-GSC-11760-1] c 33 N75-19516  
Single frequency, two feed dish antenna having switchable beamwidth  
[NASA-CASE-GSC-11968-1] c 32 N76-15329  
Switchable beamwidth monopulse method and system  
[NASA-CASE-GSC-11924-1] c 33 N76-27472

**BEAM WAVEGUIDES**  
Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135  
Optical frequency waveguide and transmission system Patent  
[NASA-CASE-HQN-10541-4] c 16 N71-27183  
Method and apparatus for aligning a laser beam projector Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125  
Microwave power transmission beam safety system  
[NASA-CASE-NPO-14224-1] c 33 N80-18287  
Multiprism collimator  
[NASA-CASE-GSC-12608-1] c 74 N83-10900

**BEAMS (RADIATION)**  
Method and means for recording and reconstructing holograms without use of a reference beam Patent  
[NASA-CASE-ERC-10020] c 16 N71-26154  
Optical frequency waveguide and transmission system  
[NASA-CASE-HQN-10541-3] c 23 N72-23695  
Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510  
Scannable beam forming interferometer antenna array system  
[NASA-CASE-GSC-12365-1] c 32 N80-28578  
Method for shaping and aiming narrow beams --- sonar mapping and target identification  
[NASA-CASE-NPO-14632-1] c 32 N82-18443  
Constant magnification optical tracking system  
[NASA-CASE-NPO-14813-1] c 74 N82-24072  
Sidelooking laser altimeter for a flight simulator  
[NASA-CASE-ARC-11312-1] c 36 N83-34304  
Off-axis coherently pumped laser  
[NASA-CASE-GSC-12592-1] c 36 N84-28065

**BEAMS (SUPPORTS)**  
Foldable beam  
[NASA-CASE-LAR-12077-1] c 31 N81-25259  
Articulated joint for deployable structures  
[NASA-CASE-NPO-16038-1] c 37 N83-20157  
Beam connector apparatus and assembly  
[NASA-CASE-MFS-25134-1] c 31 N83-31895  
Sequentially deployable maneuverable tetrahedral beam  
[NASA-CASE-LAR-13098-1] c 31 N83-35178

**BEARING (DIRECTION)**  
Light radiation direction indicator with a baffle of two parallel grids  
[NASA-CASE-XNP-03930] c 14 N69-24331  
Radiation direction detector including means for compensating for photocell aging Patent  
[NASA-CASE-XLA-00183] c 14 N70-40239  
Interferometer direction sensor Patent  
[NASA-CASE-NPO-10320] c 14 N71-17655

Omnidirectional acceleration device Patent  
[NASA-CASE-HQN-10780] c 14 N71-30265

Magnetic heading reference  
[NASA-CASE-LAR-11387-2] c 04 N77-19058

Direction sensitive laser velocimeter --- determining the direction of particles using a helium-neon laser  
[NASA-CASE-LAR-12177-1] c 36 N81-24422

System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075

**BEARINGS**

Alloys for bearings Patent  
[NASA-CASE-XLE-05033] c 15 N71-23810

Bearing and gimbal lock mechanism and spiral flex lead module Patent  
[NASA-CASE-GSC-10556-1] c 31 N71-26537

Device for measuring bearing preload  
[NASA-CASE-MFS-20434] c 11 N72-25288

Magnetic bearing --- for supplying magnetic fluxes  
[NASA-CASE-GSC-11079-1] c 37 N75-18574

Magnetic bearing system  
[NASA-CASE-GSC-11978-1] c 37 N77-17464

Hydrostatic bearing support  
[NASA-CASE-LEW-11158-1] c 37 N77-28486

Deformable bearing seat  
[NASA-CASE-LEW-12527-1] c 37 N77-32500

Bearing seat usable in a gas turbine engine  
[NASA-CASE-LEW-12477-1] c 37 N77-32501

Method of making bearing material  
[NASA-CASE-LEW-11930-3] c 24 N80-33482

Linear magnetic bearings --- active magnetic suspension of armatures  
[NASA-CASE-GSC-12582-1] c 37 N81-16469

Suspension system for a wheel rolling on a flat track --- bearings for directional antennas  
[NASA-CASE-NPO-14395-1] c 37 N82-21587

Linear magnetic bearings  
[NASA-CASE-GSC-12582-2] c 37 N83-13460

Variable force, eddy-current or magnetic damper  
[NASA-CASE-LEW-13717-1] c 39 N83-20284

Portable 90 deg proof loading device  
[NASA-CASE-MSC-20250-1] c 37 N83-29707

Antenna grout replacement system  
[NASA-CASE-NPO-15202-1] c 27 N83-34043

Magnetic bearing and motor  
[NASA-CASE-GSC-12726-1] c 37 N83-34323

Unidirectional flexural pivot  
[NASA-CASE-GSC-12622-1] c 37 N84-12492

**BEDS (PROCESS ENGINEERING)**

Catalyst bed removing tool Patent  
[NASA-CASE-XFR-00811] c 15 N70-36901

**BEER LAW**

A multichannel photoionization chamber for absorption analysis Patent  
[NASA-CASE-ERC-10044-1] c 14 N71-27090

**BEES**

Decontamination of petroleum products Patent  
[NASA-CASE-XNP-03835] c 06 N71-23499

**BELLOWS**

Balanced bellows spirometer  
[NASA-CASE-XAR-01547] c 05 N69-21473

Printed circuit board with bellows rivet connection Patent  
[NASA-CASE-XNP-05082] c 15 N70-41960

Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937

Internally supported flexible duct joint --- device for conducting fluids in high pressure systems  
[NASA-CASE-MFS-19193-1] c 37 N75-19686

Protective telescoping shield for solar concentrator  
[NASA-CASE-NPO-16236-1] c 44 N84-25164

Shoulder and hip joint for hard space suits and the like  
[NASA-CASE-ARC-11534-1] c 54 N84-33021

**BELTS**

Apparatus for forming drive belts  
[NASA-CASE-NPO-13205-1] c 31 N74-32917

**BENDING**

Radio frequency shielded enclosure Patent  
[NASA-CASE-XMF-09422] c 07 N71-19436

Means for suppressing or attenuating bending motion of elastic bodies Patent  
[NASA-CASE-XAC-05632] c 32 N71-23971

Technique of elbow bending small jacketed transfer lines Patent  
[NASA-CASE-XNP-10475] c 15 N71-24679

Forming tool for ribbon or wire  
[NASA-CASE-XLA-05966] c 15 N72-12408

**BENDING DIAGRAMS**

Electrostatic charged particle analyzer having deflection members shaped according to the periodic voltage applied thereto Patent  
[NASA-CASE-XAC-05506-1] c 24 N71-16095

**BENDING FATIGUE**

Apparatus for positioning and loading a test specimen Patent  
[NASA-CASE-XLE-01300] c 15 N70-41993

Low temperature flexure fatigue cryostat Patent  
[NASA-CASE-XMF-02964] c 14 N71-17659

**BENDING MOMENTS**

Missile launch release system Patent  
[NASA-CASE-XMF-03198] c 30 N70-40353

Improved compliant hydrodynamic fluid journal bearing  
[NASA-CASE-LEW-13670-1] c 37 N84-22959

**BENDING VIBRATION**

Viscous pendulum damper Patent  
[NASA-CASE-LAR-10274-1] c 14 N71-17626

**BENZENE**

Intumescent composition, foamed product prepared therewith, and process for making same  
[NASA-CASE-ARC-10304-1] c 18 N73-26572

Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423

The 1 - ((dialkoxyposphoryl)methyl)-2,4- and -2,6-dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076

Polymers of phosphonylmethyl-2,4- and -2,6-diamino benzenes and the like  
[NASA-CASE-ARC-11506-1] c 27 N84-12313

Fire resistant polymers based on 1-((dialkoxyposphoryl)methyl)-2,4- and -2,6-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702

**BERYLLIUM ALLOYS**

Corrosion resistant beryllium Patent  
[NASA-CASE-LEW-10327] c 17 N71-33408

Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015

**BERYLLIUM HYDRIDES**

Inhibited solid propellant composition containing beryllium hydride  
[NASA-CASE-NPO-10866-1] c 28 N79-14228

**BERYLLIUM OXIDES**

High temperature beryllium oxide capacitor  
[NASA-CASE-LEW-11938-1] c 33 N76-15373

High modulus invert analog glass compositions containing beryllia  
[NASA-CASE-HQN-10931-2] c 27 N82-29452

High modulus rare earth and beryllium containing silicate glass compositions --- for glass reinforcing fibers  
[NASA-CASE-HQN-10595-1] c 27 N82-29455

**BIAS**

Electrical self-aligning connector  
[NASA-CASE-MFS-25211-1] c 33 N80-32651

**BIMETALS**

Nonmagnetic thermal motor for a magnetometer  
[NASA-CASE-XAR-03786] c 09 N69-21313

Thermostatic actuator  
[NASA-CASE-NPO-10637] c 15 N72-12409

Thermal motor  
[NASA-CASE-NPO-11283] c 09 N72-25260

Thermal compensating structural member  
[NASA-CASE-MFS-20433] c 15 N72-28496

Bimetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids  
[NASA-CASE-ARC-10441-1] c 35 N74-15126

Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12050-1] c 35 N77-32454

**BINARY CODES**

Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773

Parallel generation of the check bits of a PN sequence Patent  
[NASA-CASE-XNP-04623] c 10 N71-26103

Encoder/decoder system for a rapidly synchronizable binary code Patent  
[NASA-CASE-NPO-10342] c 10 N71-33407

Binary coded sequential acquisition ranging system  
[NASA-CASE-NPO-11194] c 08 N72-25209

Binary concatenated coding system  
[NASA-CASE-MSC-14082-1] c 60 N76-23850

Multiple rate digital command detection system with range clean-up capability  
[NASA-CASE-NPO-13753-1] c 32 N77-20289

Pseudo noise code and data transmission method and apparatus  
[NASA-CASE-GSC-12017-1] c 32 N77-30308

Binary to binary coded decimal converter  
[NASA-CASE-GSC-12044-1] c 60 N78-17691

Apparatus and method for stabilized phase detection for binary signal tracking loops  
[NASA-CASE-MSC-16461-1] c 33 N79-11313

**BINARY DATA**

Binary magnetic memory device Patent  
[NASA-CASE-XGS-00174] c 08 N70-34743

Ripple add and ripple subtract binary counters Patent  
[NASA-CASE-XGS-04766] c 08 N71-18602

Computing apparatus Patent  
[NASA-CASE-XGS-04765] c 08 N71-18693

Digital synchronizer Patent  
[NASA-CASE-NPO-10851] c 07 N71-24613

Differential phase shift keyed communication system  
[NASA-CASE-MSC-14065-1] c 32 N74-26654

Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems  
[NASA-CASE-GSC-11743-1] c 32 N75-24981

Binary to binary coded decimal converter  
[NASA-CASE-GSC-12044-1] c 60 N78-17691

**BINARY DIGITS**

Logarithmic converter Patent  
[NASA-CASE-XLA-00471] c 08 N70-34778

Full binary adder Patent  
[NASA-CASE-XGS-00689] c 08 N70-34787

Binary number sorter Patent  
[NASA-CASE-NPO-10112] c 08 N71-12502

Binary sequence detector Patent  
[NASA-CASE-XNP-05415] c 08 N71-12505

Display for binary characters Patent  
[NASA-CASE-XGS-04987] c 08 N71-20571

Comparator for the comparison of two binary numbers Patent  
[NASA-CASE-XNP-04819] c 08 N71-23295

High speed direct binary to binary coded decimal converter and scaler  
[NASA-CASE-KSC-10595] c 08 N73-12176

A m-ary linear feedback shift register with binary logic  
[NASA-CASE-NPO-11868] c 10 N73-20254

Binary concatenated coding system  
[NASA-CASE-MSC-14082-1] c 60 N76-23850

**BINARY FLUIDS**

Flow measuring apparatus  
[NASA-CASE-LEW-12078-1] c 35 N75-30503

**BINARY TO DECIMAL CONVERTERS**

Binary to binary-coded-decimal converter Patent  
[NASA-CASE-XNP-00432] c 08 N70-35423

High speed binary to decimal conversion system Patent  
[NASA-CASE-XGS-01230] c 08 N71-19544

BCD to decimal decoder Patent  
[NASA-CASE-XKS-06167] c 08 N71-24890

High speed direct binary-to-binary coded decimal converter  
[NASA-CASE-KSC-10326] c 08 N72-21197

Binary to binary coded decimal converter  
[NASA-CASE-GSC-12044-1] c 60 N78-17691

**BINDERS (MATERIALS)**

Bonded solid lubricant coating Patent  
[NASA-CASE-XMS-00259] c 18 N70-38400

Brazing alloy binder  
[NASA-CASE-XMF-05868] c 26 N75-27125

Alkali-metal silicate binders and methods of manufacture  
[NASA-CASE-GSC-12303-1] c 24 N79-31347

**BINOCULARS**

Binocular device for displaying numerical information in field of view  
[NASA-CASE-LAR-11782-1] c 74 N77-20882

**BIOASSAY**

Apparatus for producing three-dimensional recordings of fluorescence spectra Patent  
[NASA-CASE-XGS-01231] c 14 N70-41676

Flavin coenzyme assay  
[NASA-CASE-GSC-10565-1] c 06 N72-25149

Method of detecting and counting bacteria in body fluids  
[NASA-CASE-GSC-11092-2] c 04 N73-27052

Amino acid analysis  
[NASA-CASE-NPO-12130-1] c 25 N75-14844

Servo-controlled intravital microscope system  
[NASA-CASE-NPO-13214-1] c 35 N75-25123

Method of detecting and counting bacteria  
[NASA-CASE-GSC-11917-2] c 51 N76-29891

Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694

Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N79-14750

Method and apparatus for eliminating luminol interference material  
[NASA-CASE-MSC-16260-1] c 51 N80-16714

**BIODEGRADATION**

Method for treating wastewater using microorganisms and vascular aquatic plants  
[NASA-CASE-NSTL-10] c 45 N84-12654

**BIODYNAMICS**

Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772

Kinesimetric method and apparatus  
[NASA-CASE-MSC-18929-1] c 39 N83-20280

## BIOELECTRIC POTENTIAL

- Electrode for biological recording  
[NASA-CASE-XMS-02872] c 05 N69-21925  
Method of making a perspiration resistant biopotential electrode  
[NASA-CASE-MSC-90153-2] c 05 N72-25120  
Process for control of cell division  
[NASA-CASE-LAR-10773-3] c 51 N77-25769

## BIOELECTRICITY

- Plated electrodes Patent  
[NASA-CASE-XMS-04213-1] c 09 N71-26002  
Indirect microbial detection  
[NASA-CASE-LAR-12520-1] c 51 N81-28698

## BIOENGINEERING

- Bio-isolated dc operational amplifier --- for bioelectric measurements  
[NASA-CASE-ARC-10596-1] c 33 N74-21851  
Actuator device for artificial leg  
[NASA-CASE-MFS-23225-1] c 52 N77-14735  
Percutaneous connector device  
[NASA-CASE-KSC-10849-1] c 52 N77-14738  
Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772  
Subcutaneous electrode structure  
[NASA-CASE-ARC-11117-1] c 52 N81-14612  
Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N81-24711  
Bio-medical flow sensor --- intravenous procedures  
[NASA-CASE-MSC-18761-1] c 52 N83-27577  
Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744  
Medical clip  
[NASA-CASE-LAR-12650-1] c 52 N84-28388

## BIOINSTRUMENTATION

- Temperature compensated solid state differential amplifier Patent  
[NASA-CASE-XAC-00435] c 09 N70-35440  
Electrode construction Patent  
[NASA-CASE-ARC-10043-1] c 05 N71-11193  
Pressed disc type sensing electrodes with ion-screening means Patent  
[NASA-CASE-XMS-04212-1] c 05 N71-12346  
EEG sleep analyzer and method of operation Patent  
[NASA-CASE-MSC-13282-1] c 05 N71-24729  
Plated electrodes Patent  
[NASA-CASE-XMS-04213-1] c 09 N71-26002  
Ultrasonic biomedical measuring and recording apparatus --- for recording motion of internal organs such as heart valves  
[NASA-CASE-ARC-10597-1] c 52 N74-20726  
Subminiature insertable force transducer --- including a strain gage to measure forces in muscles  
[NASA-CASE-NPO-13423-1] c 33 N75-31329  
Catheter tip force transducer for cardiovascular research  
[NASA-CASE-NPO-13643-1] c 52 N76-29896  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-1] c 52 N76-33835  
Thermistor holder for skin temperature measurements  
[NASA-CASE-ARC-10855-1] c 52 N77-10780  
Magnetic electrical connectors for biomedical percutaneous implants  
[NASA-CASE-KSC-11030-1] c 52 N77-25772  
Corneal seal device  
[NASA-CASE-LEW-12258-1] c 52 N77-28716  
Snap-in compressible biomedical electrode  
[NASA-CASE-MSC-14623-1] c 52 N77-28717  
Miniature implantable ultrasonic echosonometer  
[NASA-CASE-ARC-11035-1] c 52 N79-18580  
Induction powered biological radiosome  
[NASA-CASE-ARC-11120-1] c 52 N80-18691  
Pulse transducer with artifact signal attenuator --- heart rate sensors  
[NASA-CASE-FRC-11012-1] c 52 N80-23969  
Method and automated apparatus for detecting coliform organisms  
[NASA-CASE-MSC-16777-1] c 51 N80-27067  
Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072  
Logic-controlled occlusive cuff system  
[NASA-CASE-MSC-14836-1] c 52 N82-11770  
Implantable electrical device  
[NASA-CASE-GSC-12560-1] c 52 N82-29863  
Dual physiological rate measurement instrument  
[NASA-CASE-MSC-20078-1] c 52 N82-32971
- BIO-LUMINESCENCE**  
Light detection instrument Patent  
[NASA-CASE-XGS-05534] c 23 N71-16355  
Lyophilized reaction mixtures Patent  
[NASA-CASE-XGS-05532] c 06 N71-17705  
Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794

- Rapid, quantitative determination of bacteria in water --- adenosine triphosphate  
[NASA-CASE-GSC-12158-1] c 51 N83-27569

## BIOMASS ENERGY PRODUCTION

- Fluidized bed liquefaction of biomass  
[NASA-CASE-NPO-15907-1] c 25 N83-36121  
Fluidized bed gasification of biomass to methane  
[NASA-CASE-NPO-15903-1] c 44 N84-12635

## BIOMEDICAL DATA

- Biomedical radiation detecting probe Patent  
[NASA-CASE-XMS-01177] c 05 N71-19440  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-2] c 52 N79-26771

## BIOMETRICS

- Pressed disc type sensing electrodes with ion-screening means Patent  
[NASA-CASE-XMS-04212-1] c 05 N71-12346  
Compressible biomedical electrode  
[NASA-CASE-MSC-13648] c 05 N72-27103  
Ultrasonic biomedical measuring and recording apparatus --- for recording motion of internal organs such as heart valves  
[NASA-CASE-ARC-10597-1] c 52 N74-20726  
Arterial pulse wave pressure transducer  
[NASA-CASE-GSC-11531-1] c 52 N74-27566  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-1] c 52 N76-33835  
Miniature implantable ultrasonic echosonometer  
[NASA-CASE-ARC-11035-1] c 52 N79-18580  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-2] c 52 N79-26771  
Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072  
Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703  
Sweat collection capsule  
[NASA-CASE-ARC-11031-1] c 52 N81-28763

## BIOTELEMETRY

- Telemeter adaptable for implanting in an animal Patent  
[NASA-CASE-XAC-05706] c 05 N71-12342  
Miniature multichannel biotelemetry system  
[NASA-CASE-NPO-13065-1] c 52 N74-26625  
Medical subject monitoring systems --- multichannel monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N78-14757  
Accelerometer telemetry system  
[NASA-CASE-ARC-10849-1] c 17 N76-29347  
Miniature ingestible telemeter devices to measure deep-body temperature  
[NASA-CASE-ARC-10583-1] c 52 N76-29894

## BIPOLAR TRANSISTORS

- Voltage regulator for battery power source --- using a bipolar transistor  
[NASA-CASE-FRC-10116-1] c 33 N79-23345  
Power converter  
[NASA-CASE-FRC-11014-1] c 33 N82-18494  
Hybrid power semiconductor switch  
[NASA-CASE-LEW-13922-1] c 33 N84-11389

## BIREFRINGENCE

- Polarimeter for transient measurement Patent  
[NASA-CASE-XNP-08883] c 23 N71-16101

## BISMUTH

- Manganese bismuth films with narrow transfer characteristics for Curie-point switching  
[NASA-CASE-NPO-11336-1] c 76 N79-16678

## BISMUTH COMPOUNDS

- Hall effect magnetometer  
[NASA-CASE-LEW-11632-2] c 35 N75-13213

## BISTABLE CIRCUITS

- AC logic flip-flop circuits Patent  
[NASA-CASE-XGS-00823] c 10 N71-15910

## BIT SYNCHRONIZATION

- Telemetry word forming unit  
[NASA-CASE-XNP-09225] c 09 N69-24333  
Transition tracking bit synchronization system  
[NASA-CASE-NPO-10844] c 07 N72-20140  
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system  
[NASA-CASE-NPO-11302-1] c 07 N73-13149  
Method and apparatus for a single channel digital communications system --- synchronization of received PCM signal by digital correlation with reference signal  
[NASA-CASE-NPO-11302-2] c 32 N74-10132

## BITERNARY CODE

- Minimal logic block encoder Patent  
[NASA-CASE-NPO-10595] c 10 N71-25917

## BITS

- Parallel generation of the check bits of a PN sequence Patent  
[NASA-CASE-XNP-04623] c 10 N71-26103  
MOD 2 sequential function generator for multibit binary sequence  
[NASA-CASE-NPO-10636] c 08 N72-25210

- Bit error rate measurement above and below bit rate tracking threshold  
[NASA-CASE-MSC-12743-1] c 32 N79-10263

## BITUMENS

- Oil shale extraction using super-critical extraction  
[NASA-CASE-NPO-15656-1] c 43 N84-23012

## BLACK BODY RADIATION

- Black-body furnace Patent  
[NASA-CASE-XLE-01399] c 33 N71-15625  
Cavity radiometer Patent  
[NASA-CASE-XNP-08961] c 14 N71-24809  
Conically shaped cavity radiometer with a dual purpose cone winding Patent  
[NASA-CASE-XNP-09701] c 14 N71-26475  
Black body cavity radiometer Patent  
[NASA-CASE-NPO-10810] c 14 N71-27323

## BLADDER

- Prosthetic urinary sphincter  
[NASA-CASE-MFS-23717-1] c 52 N81-25660

## BLADE TIPS

- Modification and improvements to cooled blades Patent  
[NASA-CASE-XLE-00092] c 15 N70-33264  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450  
Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560

## BLADES

- Impact absorbing blade mounts for variable pitch blades  
[NASA-CASE-LEW-12313-1] c 37 N78-10468

## BLADES (CUTTERS)

- Line cutter Patent  
[NASA-CASE-XMS-04072] c 15 N70-42017  
Tissue macerating instrument  
[NASA-CASE-LEW-12668-1] c 52 N78-14773  
Crystal cleaving machine  
[NASA-CASE-GSC-12584-1] c 37 N82-32730

## BLAST LOADS

- Linear explosive comparison  
[NASA-CASE-LAR-10800-1] c 33 N72-27959

## BLOOD

- Reduction of blood serum cholesterol  
[NASA-CASE-NPO-12119-1] c 52 N75-15270  
Gas diffusion liquid storage bag and method of use for storing blood  
[NASA-CASE-NPO-13930-1] c 52 N79-14749  
Dialysis system --- using ion exchange resin membranes permeable to urea molecules  
[NASA-CASE-NPO-14101-1] c 52 N80-14887

## BLOOD FLOW

- Logic-controlled occlusive cuff system  
[NASA-CASE-MSC-14836-1] c 52 N82-11770

## BLOOD PRESSURE

- Blood pressure measuring system for separating and separately recording dc signal and an ac signal Patent  
[NASA-CASE-XMS-06061] c 05 N71-23317  
Apparatus and method for processing Korotkov sounds --- for blood pressure measurement  
[NASA-CASE-MSC-13999-1] c 52 N74-26626  
Arterial pulse wave pressure transducer  
[NASA-CASE-GSC-11531-1] c 52 N74-27566  
Circuit for detecting initial systole and diastolic notch --- for monitoring arterial pressure  
[NASA-CASE-LEW-11581-1] c 54 N75-13531

## BLOOD VESSELS

- Non-invasive method and apparatus for measuring pressure within a pliable vessel  
[NASA-CASE-ARC-11264-2] c 52 N83-29991

## BLUFF BODIES

- Annular supersonic decelerator or drogue Patent  
[NASA-CASE-XLE-00222] c 02 N70-37939

## BLUNT BODIES

- Flow field simulation Patent  
[NASA-CASE-LAR-11138] c 12 N71-20438

## BODIES OF REVOLUTION

- Conforming polisher for aspheric surface of revolution Patent  
[NASA-CASE-XGS-02884] c 15 N71-22705  
Moment of inertia test fixture Patent  
[NASA-CASE-XGS-01023] c 14 N71-22992

## BODY FLUIDS

- Programmable physiological infusion  
[NASA-CASE-ARC-10447-1] c 52 N74-22771  
Method of detecting and counting bacteria  
[NASA-CASE-GSC-11917-2] c 51 N76-29891  
Micro-fluid exchange coupling apparatus  
[NASA-CASE-ARC-11114-1] c 51 N81-14605

## BODY KINEMATICS

- Space suit having improved waist and torso movement  
[NASA-CASE-ARC-10275-1] c 05 N72-22092  
Controller arm for a remotely related slave arm  
[NASA-CASE-ARC-11052-1] c 37 N79-28551

- Kinesimetric method and apparatus  
[NASA-CASE-MSC-18929-1] c 39 N83-20280
- BODY MEASUREMENT (BIOLOGY)**
- Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-1] c 52 N76-33835
- Miniature implantable ultrasonic echosonometer  
[NASA-CASE-ARC-11035-1] c 52 N79-18580
- Kinesimetric method and apparatus  
[NASA-CASE-MSC-18929-1] c 39 N83-20280
- Apparatus for determining changes in limb volume  
[NASA-CASE-MSC-18759-1] c 52 N83-27578
- BODY TEMPERATURE**
- Garments for controlling the temperature of the body  
Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147
- Miniature ingestible telemeter devices to measure deep-body temperature  
[NASA-CASE-ARC-11035-1] c 52 N76-29894
- BODY VOLUME (BIOLOGY)**
- Whole body measurement systems --- for weightlessness simulation  
[NASA-CASE-MSC-13972-1] c 52 N74-10975
- Apparatus for determining changes in limb volume  
[NASA-CASE-MSC-18759-1] c 52 N83-27578
- BODY-WING CONFIGURATIONS**
- Free wing assembly for an aircraft  
[NASA-CASE-FRC-10092-1] c 05 N79-12061
- Means for controlling aerodynamically induced twist  
[NASA-CASE-LAR-12175-1] c 05 N82-28279
- BOILERS**
- Boiler for generating high quality vapor Patent  
[NASA-CASE-XLE-00785] c 33 N71-16104
- Shell side liquid metal boiler  
[NASA-CASE-NPO-10831] c 33 N72-20915
- Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-16027-1] c 33 N83-29595
- BOLOMETERS**
- Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent  
[NASA-CASE-XNP-01193] c 10 N71-16057
- Thin film capacitive bolometer and temperature sensor Patent  
[NASA-CASE-NPO-10607] c 09 N71-27232
- Wedge immersed thermistor bolometers  
[NASA-CASE-XGS-01245-1] c 35 N79-33449
- BOLTS**
- Gas actuated bolt disconnect Patent  
[NASA-CASE-XLA-00326] c 03 N70-34687
- Despin weight release Patent  
[NASA-CASE-XLA-00679] c 15 N70-38601
- Inspection gage for boss Patent  
[NASA-CASE-XMF-04968] c 14 N71-17658
- Split nut separation system Patent  
[NASA-CASE-XNP-06914] c 15 N71-21489
- Fastener stretcher  
[NASA-CASE-GSC-11149-1] c 15 N73-30457
- Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859
- BONDING**
- Bonding graphite with fused silver chloride  
[NASA-CASE-XGS-00963] c 15 N69-39735
- Bonded joint and method --- for reducing peak shear stress in adhesive bonds  
[NASA-CASE-LAR-10900-1] c 37 N74-23064
- Bonding method in the manufacture of continuous regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260
- Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts  
[NASA-CASE-MSC-14182-1] c 27 N76-14264
- Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13652-2] c 44 N79-24431
- Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-3] c 24 N79-25143
- Method of making a partial interlaminar separation composite system  
[NASA-CASE-LAR-12065-2] c 24 N81-33235
- Attachment system for silica tiles --- thermal protection for space shuttle orbiter  
[NASA-CASE-MSC-18741-1] c 27 N82-29456
- Surface texturing of fluoropolymers  
[NASA-CASE-LEW-13028-1] c 27 N82-33521
- Method for making a bonded single mode fiber optic wavelength coupler  
[NASA-CASE-NPO-15464-1] c 74 N83-25540
- Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297
- Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324
- BONES**
- Ultrasonic bone densitometer  
[NASA-CASE-MFS-20994-1] c 35 N75-12271
- Method and system for in vivo measurement of bone tissue using a two level energy source  
[NASA-CASE-MSC-14276-1] c 52 N77-14737
- Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement  
[NASA-CASE-NPO-13764-1] c 27 N78-17215
- BOOMS (EQUIPMENT)**
- Folding boom assembly Patent  
[NASA-CASE-XGS-00938] c 32 N70-41367
- Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27191
- Minimech self-deploying boom mechanism  
[NASA-CASE-GSC-10566-1] c 15 N72-18477
- Mechanically extendible telescoping boom  
[NASA-CASE-NPO-11118] c 03 N72-25021
- Extended moment arm anti-spin device  
[NASA-CASE-LAR-12979-1] c 02 N83-29173
- BOOSTER RECOVERY**
- Recoverable rocket vehicle Patent  
[NASA-CASE-XMF-00389] c 31 N70-34176
- Recoverable single stage spacecraft booster Patent  
[NASA-CASE-XMF-01973] c 31 N70-41588
- Orbiter/launch system  
[NASA-CASE-LAR-12250-1] c 14 N81-26161
- BOOSTER ROCKET ENGINES**
- Segmented back-up bar Patent  
[NASA-CASE-XMF-00640] c 15 N70-39924
- Recoverable single stage spacecraft booster Patent  
[NASA-CASE-XMF-01973] c 31 N70-41588
- Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784
- BOOTS (FOOTWEAR)**
- Walking boot assembly  
[NASA-CASE-ARC-11101-1] c 54 N78-17675
- BORIDES**
- Method of making a light weight battery plaque  
[NASA-CASE-LEW-13349-1] c 26 N84-22734
- BORING MACHINES**
- Boring bar drive mechanism Patent  
[NASA-CASE-XLA-03661] c 15 N71-33518
- Borehole geological assessment  
[NASA-CASE-NPO-14231-1] c 46 N80-10709
- BORON**
- Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential of field effect device  
[NASA-CASE-GSC-11425-1] c 76 N74-20329
- BORON CARBIDES**
- Catalyst for growth of boron carbide single crystal whiskers  
[NASA-CASE-XHQ-03903] c 15 N69-21922
- BORON FIBERS**
- Method and apparatus for strengthening boron fibers --- high temperature oxidation  
[NASA-CASE-LEW-13826-1] c 24 N82-26385
- Method for strengthening boron fibers  
[NASA-CASE-LEW-13826-2] c 24 N84-24711
- BORON FLUORIDES**
- Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge  
[NASA-CASE-ARC-11057-1] c 27 N78-31233
- BOROSILICATE GLASS**
- Method for repair of thin glass coatings --- on space shuttle orbiter tiles  
[NASA-CASE-KSC-11097-1] c 27 N82-33520
- BOULES**
- Improved ingot slicing machine  
[NASA-CASE-NPO-15483-1] c 37 N82-28642
- BOUNDARY LAYER CONTROL**
- Double hinged flap Patent  
[NASA-CASE-XLA-01290] c 02 N70-42016
- Aerodynamic side-force alleviator means  
[NASA-CASE-LAR-12326-1] c 02 N81-14968
- BOUNDARY LAYER SEPARATION**
- Tertiary flow injection thrust vectoring system Patent  
[NASA-CASE-MFS-20831] c 28 N71-29153
- Controlled separation combustor --- airflow distribution in gas turbine engines  
[NASA-CASE-LEW-11593-1] c 20 N76-14190
- Self stabilizing sonic inlet  
[NASA-CASE-LEW-11890-1] c 05 N79-24976
- BOUNDARY LAYER TRANSITION**
- Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure pressure levels during wind tunnel tests  
[NASA-CASE-LAR-12261-1] c 02 N80-20224
- BOUNDARY LAYERS**
- Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692
- Apparatus for sensing temperature  
[NASA-CASE-XLE-05230] c 14 N72-27410
- BOXES (CONTAINERS)**
- Storage container for electronic devices Patent  
[NASA-CASE-MFS-20075] c 09 N71-26133
- BRACKETS**
- Electrical servo actuator bracket --- fuel control valves on jet engines  
[NASA-CASE-FRC-11044-1] c 37 N81-33483
- Tool for releasing optical elements  
[NASA-CASE-GSC-12794-1] c 37 N83-12434
- BRAKES (FOR ARRESTING MOTION)**
- Frangible tube energy dissipation Patent  
[NASA-CASE-XLA-00754] c 15 N70-34850
- Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067
- Sprag solenoid brake --- development and operations of electrically controlled brake  
[NASA-CASE-MFS-21846-1] c 37 N74-26976
- Reel safety brake  
[NASA-CASE-GSC-11960-1] c 37 N77-14479
- Motion restraining device  
[NASA-CASE-NPO-13619-1] c 37 N78-16369
- Moving body velocity arresting line --- stainless steel cables with energy absorbing sleeves  
[NASA-CASE-LAR-12372-1] c 37 N82-18601
- BRAKING**
- Regenerative braking system Patent  
[NASA-CASE-XMF-01096] c 10 N71-16030
- Linear magnetic brake with two windings Patent  
[NASA-CASE-XLE-05079] c 15 N71-17652
- Anemometer with braking mechanism Patent  
[NASA-CASE-XMF-05224] c 14 N71-23726
- BRAZING**
- Pretreatment method for anti-wettable materials  
[NASA-CASE-XMS-03537] c 15 N69-21471
- Process for applying a protective coating for salt bath brazing Patent  
[NASA-CASE-XLE-00046] c 15 N70-33311
- Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443
- Brazing alloy Patent  
[NASA-CASE-XNP-03083] c 17 N71-23365
- Brazing alloy binder  
[NASA-CASE-XMF-05868] c 26 N75-27125
- Brazing alloy composition  
[NASA-CASE-XMF-06053] c 26 N75-27126
- Brazing alloy  
[NASA-CASE-XNP-03878] c 26 N75-27127
- Method of fluxless brazing and diffusion bonding of aluminum containing components  
[NASA-CASE-MSC-14435-1] c 37 N76-18455
- BREATHING APPARATUS**
- Transfer valve Patent  
[NASA-CASE-XAC-01158] c 15 N71-23051
- Self-contained breathing apparatus  
[NASA-CASE-MSC-14733-1] c 54 N76-24900
- Portable breathing system --- a breathing apparatus using a rebreathing system of heat exchangers for carbon dioxide removal  
[NASA-CASE-MSC-16182-1] c 54 N80-10799
- BRICKS**
- Foldable construction block  
[NASA-CASE-MSC-12233-2] c 32 N73-13921
- BRIGHTNESS**
- Light intensity modulator controller Patent  
[NASA-CASE-XMS-04300] c 09 N71-19479
- BRIGHTNESS DISCRIMINATION**
- Television signal processing system Patent  
[NASA-CASE-NPO-10140] c 07 N71-24742
- Visual examination apparatus  
[NASA-CASE-ARC-10329-1] c 05 N73-26072
- Illumination control apparatus for compensating solar light  
[NASA-CASE-KSC-11010-1] c 74 N79-12890
- BRITTLENESS**
- Rock sampling --- apparatus for controlling particle size  
[NASA-CASE-XNP-10007-1] c 46 N74-23068
- Rock sampling --- method for controlling particle size distribution  
[NASA-CASE-XNP-09755] c 46 N74-23069
- Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-29390
- Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341
- BROADBAND**
- Broadband choke for antenna structure  
[NASA-CASE-XMS-05303] c 07 N69-27462
- Flexible blade antenna Patent  
[NASA-CASE-MSC-12101] c 09 N71-18720
- Broadband frequency discriminator Patent  
[NASA-CASE-NPO-10098] c 07 N71-24583
- Broadband microwave waveguide window Patent  
[NASA-CASE-XNP-08880] c 09 N71-24808



## BROADBAND AMPLIFIERS

- High-gain, broadband traveling wave maser Patent  
[NASA-CASE-NPO-10548] c 16 N71-24831
- Wideband VCO with high phase stability Patent  
[NASA-CASE-XLA-03893] c 10 N71-27271
- Composite antenna feed  
[NASA-CASE-GSC-11046-1] c 07 N73-28013
- Multifrequency broadband polarized horn antenna  
[NASA-CASE-NPO-14588-1] c 32 N81-25278
- Broadband optical radiation detector  
[US-PATENT-4,262,198] c 74 N83-19597
- BROADBAND AMPLIFIERS**  
Broadband stable power multiplier Patent  
[NASA-CASE-XNP-10854] c 10 N71-26331
- Cascaded complementary pair broadband transistor amplifiers Patent  
[NASA-CASE-NPO-10003] c 10 N71-26415
- BROADCASTING**  
Vehicle locating system utilizing AM broadcasting station carriers  
[NASA-CASE-NPO-13217-1] c 32 N75-26194
- BROMINATION**  
Toughening reinforced epoxy composites with brominated polymeric additives  
[NASA-CASE-ARC-11427-1] c 24 N83-25791
- BROMINE**  
Hydrogen-bromine secondary battery  
[NASA-CASE-NPO-13237-1] c 44 N76-18641
- BRONZES**  
Thin wire pointing method  
[NASA-CASE-NPO-15789-1] c 31 N83-19947
- BRUSHES**  
Method of making impurity-type semiconductor electrical contacts Patent  
[NASA-CASE-XMF-01016] c 26 N71-17818
- BRUSHES (ELECTRICAL CONTACTS)**  
Shaft transducer having dc output proportional to angular velocity  
[NASA-CASE-NPO-15706-1] c 35 N84-28017
- BUBBLES**  
Method of forming frozen spheres in a force-free drop tower  
[NASA-CASE-NPO-14845-1] c 27 N82-28442
- Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781
- BUCKLING**  
Miniature vibration isolator Patent  
[NASA-CASE-XLA-01019] c 15 N70-40156
- Compression test assembly  
[NASA-CASE-LAR-10440-1] c 14 N73-32323
- BUFFER STORAGE**  
Data handling system based on source significance, storage availability and data received from the source Patent Application  
[NASA-CASE-XNP-04162-1] c 08 N70-34675
- Data transfer system Patent  
[NASA-CASE-NPO-12107] c 08 N71-27255
- Buffered analog converter  
[NASA-CASE-KSC-10397] c 08 N72-25206
- Common data buffer system --- communication with computational equipment utilized in spacecraft operations  
[NASA-CASE-KSC-11048-1] c 62 N81-24779
- BUFFERS (CHEMISTRY)**  
Static continuous electrophoresis device  
[NASA-CASE-MFS-25306-1] c 25 N83-13187
- BUILDINGS**  
Foldable construction block  
[NASA-CASE-MSC-12233-1] c 15 N72-25454
- BULBS**  
External bulb variable volume maser  
[NASA-CASE-GSC-12334-1] c 36 N79-14362
- BULKHEADS**  
Tank construction for space vehicles Patent  
[NASA-CASE-XMF-01899] c 31 N70-41948
- BUOYANCY**  
Inflatable radar reflector unit Patent  
[NASA-CASE-XMS-00893] c 07 N70-40063
- BURNERS**  
Micronized coal burner facility  
[NASA-CASE-LEW-13426-1] c 25 N84-16276
- BURNING RATE**  
Burning rate control of solid propellants Patent  
[NASA-CASE-XLE-03494] c 27 N71-21819
- Burn rate testing apparatus  
[NASA-CASE-XMS-09690] c 33 N72-25913
- Nitramine propellants --- gun propellant burning rate  
[NASA-CASE-NPO-14103-1] c 28 N78-31255
- BURNOUT**  
Spherically-shaped rocket motor Patent  
[NASA-CASE-XHO-01897] c 28 N70-35381
- BURNS (INJURIES)**  
Medical diagnosis system and method with multispectral imaging --- depth of burns and optical density of the skin  
[NASA-CASE-NPO-14402-1] c 52 N81-27783

## BUS CONDUCTORS

- Test apparatus for locating shorts during assembly of electrical buses  
[NASA-CASE-ARC-11118-1] c 33 N82-24420

## BUTT JOINTS

- Channel-type shell construction for rocket engines and the like Patent  
[NASA-CASE-XLE-00144] c 28 N70-34860
- Segmented back-up bar Patent  
[NASA-CASE-XMF-00640] c 15 N70-39924
- Apparatus for welding sheet material --- butt joints  
[NASA-CASE-XMS-01330] c 37 N75-27376

## BUTTERFLY VALVES

- Flexible seal for valves Patent  
[NASA-CASE-XLE-00101] c 15 N70-33376

## BUTYRIC ACID

- Production of butanol by fermentation in the presence of co-culture of clostridium  
[NASA-CASE-NPO-16203-1] c 44 N83-29806

## BYPASSES

- Low power drain semi-conductor circuit  
[NASA-CASE-XGS-04999] c 09 N69-24317
- Helical coaxial resonator RF filter  
[NASA-CASE-XGS-02816] c 07 N69-24323
- Current regulating voltage divider  
[NASA-CASE-MFS-20935] c 09 N71-34212
- Use of unilluminated solar cells as shunt diodes for a solar array  
[NASA-CASE-GSC-10344-1] c 03 N72-27053
- Shunt regulation electric power system  
[NASA-CASE-GSC-10135] c 33 N78-17296
- Thrust reverser for a long duct fan engine --- for turbofan engines  
[NASA-CASE-LEW-13199-1] c 07 N82-26293
- Method of making an ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095

## C

### CABLE FORCE RECORDERS

- Winch having cable position and load indicators Patent  
[NASA-CASE-MSC-12052-1] c 15 N71-24599

### CABLES

- Cable restraint  
[NASA-CASE-LAR-10129-1] c 15 N73-25512
- Deployable flexible tunnel  
[NASA-CASE-MFS-22636-1] c 37 N76-22540

### CABLES (ROPE)

- High-voltage cable Patent  
[NASA-CASE-XNP-00738] c 09 N70-38201
- Cable arrangement for rigid tethering Patent  
[NASA-CASE-XLA-02332] c 32 N71-17609
- Extensible cable support Patent  
[NASA-CASE-XMF-07587] c 15 N71-18701
- Satellite appendage tie down cord Patent  
[NASA-CASE-XGS-02554] c 31 N71-21064
- Quick attach mechanism Patent  
[NASA-CASE-XFR-05421] c 15 N71-22994
- Flexible/rigidifiable cable assembly  
[NASA-CASE-MSC-13512-1] c 15 N72-22485
- Cable stabilizer for open shaft cable operated elevators  
[NASA-CASE-KSC-10513] c 15 N72-25453
- Reefing system  
[NASA-CASE-LAR-10129-2] c 37 N74-20063
- Emergency descent device  
[NASA-CASE-MFS-23074-1] c 54 N77-21844
- Belt for transmitting power from a cogged driving member to a cogged driven member  
[NASA-CASE-GSC-12289-1] c 37 N80-32717
- Moving body velocity arresting line --- stainless steel cables with energy absorbing sleeves  
[NASA-CASE-LAR-12372-1] c 37 N82-18601

### CADMIUM SULFIDES

- High field CdS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088
- CDS solid state phase insensitive ultrasonic transducer --- annealing cadmium sulfide crystals  
[NASA-CASE-LAR-12304-1] c 35 N80-20559

### CALCIUM

- Ultrasonic bone densitometer  
[NASA-CASE-MFS-20994-1] c 35 N75-12271

### CALCIUM FLUORIDES

- Bonded solid lubricant coating Patent  
[NASA-CASE-XMS-00259] c 18 N70-36400
- Method of making self lubricating fluoride-metal composite materials Patent  
[NASA-CASE-XLE-08511-2] c 18 N71-16105

### CALCIUM OXIDES

- Process for the preparation of calcium superoxide  
[NASA-CASE-ARC-11053-1] c 25 N79-10162

## CALCIUM PHOSPHATES

- Process for the preparation of brushite crystals  
[NASA-CASE-ERC-10338] c 04 N72-33072

## CALCULATORS

- Sun angle calculator  
[NASA-CASE-MSC-12617-1] c 35 N76-29552

## CALCULI

- Apparatus for disintegrating kidney stones  
[NASA-CASE-GSC-12652-1] c 52 N84-34913

## CALIBRATING

- Self-calibrating displacement transducer Patent  
[NASA-CASE-XLA-00781] c 09 N71-22999
- Pressure transducer calibrator Patent  
[NASA-CASE-XNP-01660] c 14 N71-23036
- Apparatus for testing a pressure responsive instrument Patent  
[NASA-CASE-XMF-04134] c 14 N71-23755
- Phonocardiogram simulator Patent  
[NASA-CASE-XKS-10804] c 05 N71-24606
- Laser calibrator Patent  
[NASA-CASE-XLA-03410] c 16 N71-25914
- Radar calibration sphere  
[NASA-CASE-XLA-11154] c 07 N72-21117
- Gauge calibration by diffusion  
[NASA-CASE-XGS-07752] c 14 N73-30390
- System for calibrating pressure transducer  
[NASA-CASE-LAR-10910-1] c 35 N74-13132
- In situ transfer standard for ultrahigh vacuum gage calibration  
[NASA-CASE-LAR-10862-1] c 35 N74-15092
- Ergometer calibrator --- for any ergometer utilizing rotating shaft  
[NASA-CASE-MFS-21045-1] c 35 N75-15932
- Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity  
[NASA-CASE-LAR-11435-1] c 35 N76-15432
- High temperature strain gage calibration fixture  
[NASA-CASE-LAR-11500-1] c 35 N76-24523
- Electronically scanned pressure sensor module with in situ calibration capability  
[NASA-CASE-LAR-12230-1] c 35 N79-14347
- Calibrating pressure switch  
[NASA-CASE-XMF-04494-1] c 33 N79-33392
- Electromagnetic power absorber  
[NASA-CASE-NPO-13830-1] c 32 N80-14281
- Automatic flowmeter calibration system  
[NASA-CASE-KSC-11076-1] c 34 N81-26402
- Method and apparatus for self-calibration and phasing of array antenna  
[NASA-CASE-NPO-15920-1] c 32 N82-33593
- Simulator scene display evaluation  
[NASA-CASE-ARC-11504-1] c 09 N84-16221
- Method and apparatus for precision control of radiometer  
[NASA-CASE-NPO-15398-1] c 35 N84-22931
- Spinning disk calibration method and apparatus for laser Doppler velocimeter  
[NASA-CASE-ARC-11510-1] c 35 N84-25015
- Strain gage calibration  
[NASA-CASE-LAR-12743-1] c 35 N84-28019
- Means and method for calibrating a photon detector utilizing electron-photon coincidence  
[NASA-CASE-NPO-15644-1] c 35 N84-33767
- CALORIMETERS**  
Constant temperature heat sink for calorimeters Patent  
[NASA-CASE-XMF-04208] c 33 N71-29051
- Heat flow calorimeter --- measures output of Ni-Cd batteries  
[NASA-CASE-GSC-11434-1] c 34 N74-27859
- Containerless high temperature calorimeter apparatus  
[NASA-CASE-MFS-23923-1] c 35 N81-19426
- CAMERA SHUTTERS**  
Electrically-operated rotary shutter Patent  
[NASA-CASE-XNP-00637] c 14 N70-40273
- Fast opening diaphragm Patent  
[NASA-CASE-XLA-03660] c 15 N71-21060
- Cyclically operable optical shutter  
[NASA-CASE-NPO-10758] c 14 N73-14427
- Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly --- for use with cameras mounted in satellites  
[NASA-CASE-GSC-11560-1] c 33 N74-20861
- CAMERAS**  
Measurement of time differences between luminous events Patent  
[NASA-CASE-XLA-01987] c 23 N71-23976
- Image magnification adapter for cameras Patent  
[NASA-CASE-XMF-03844-1] c 14 N71-26474
- Film feed camera having a detent means Patent  
[NASA-CASE-LAR-10686] c 14 N71-28935
- Laser camera and diffusion filter therefore Patent  
[NASA-CASE-NPO-10417] c 16 N71-33410
- Optical binocular scanning apparatus  
[NASA-CASE-NPO-11002] c 14 N72-22441



- On-film optical recording of camera lens settings  
[NASA-CASE-MSC-12363-1] c 14 N73-26431
- Exposure interlock for oscilloscope cameras  
[NASA-CASE-LAR-10319-1] c 14 N73-32322
- Real time moving scene holographic camera system  
[NASA-CASE-MFS-21087-1] c 35 N74-17153
- Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-11213-1] c 35 N75-15014
- Spectrometer integrated with a facsimile camera  
[NASA-CASE-LAR-11207-1] c 35 N75-19613
- Real time, large volume, moving scene holographic camera system  
[NASA-CASE-MFS-22537-1] c 35 N75-27328
- Holographic motion picture camera with Doppler shift compensation  
[NASA-CASE-MFS-22517-1] c 35 N76-18402
- CAMS**
- Controlled caging and uncaging mechanism  
[NASA-CASE-GSC-11063-1] c 37 N77-27400
- Cam-operated pitch-change apparatus  
[NASA-CASE-LEW-13050-1] c 07 N79-14095
- CAM controlled retractable door latch  
[NASA-CASE-MSC-20304-1] c 37 N82-31690
- CANARD CONFIGURATIONS**
- Thrust and direction control apparatus Patent  
[NASA-CASE-XLE-03583] c 31 N71-17629
- Supersonic transport --- using canard surfaces  
[NASA-CASE-LAR-11932-1] c 05 N78-32086
- Missile rolling tail brake torque system --- simulating bearing friction on canard controlled missiles  
[NASA-CASE-LAR-12751-1] c 15 N84-16231
- CANCER**
- Coupling apparatus for ultrasonic medical diagnostic system  
[NASA-CASE-NPO-13935-1] c 52 N79-14751
- Hyperthermia heating apparatus --- cancer therapy  
[NASA-CASE-NPO-14549-2] c 52 N82-33996
- Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053
- CANOPIES**
- Transparent fire resistant polymeric structures  
[NASA-CASE-ARC-10813-1] c 27 N76-16230
- Method for refurbishing and processing parachutes  
[NASA-CASE-KSC-11042-1] c 09 N82-29330
- Aircraft canopy lock  
[NASA-CASE-FRC-11065-1] c 05 N83-19737
- CANS**
- Canister closing device Patent  
[NASA-CASE-XLA-01446] c 15 N71-21528
- Extrusion can  
[NASA-CASE-NPO-10812] c 15 N73-13464
- CANTILEVER BEAMS**
- Inflatable support structure Patent  
[NASA-CASE-XLA-01731] c 32 N71-21045
- Cantilever mounted resilient pad gas bearing  
[NASA-CASE-LEW-12569-1] c 37 N79-10418
- CANTILEVER MEMBERS**
- Deployable solar cell array  
[NASA-CASE-NPO-10883] c 31 N72-22874
- Miniature biaxial strain transducer  
[NASA-CASE-LAR-11648-1] c 35 N77-14407
- CAPACITANCE**
- Device for determining the accuracy of the flare on a flared tube  
[NASA-CASE-XKS-03495] c 14 N69-39785
- Floating two force component measuring device Patent  
[NASA-CASE-XAC-04885] c 14 N71-23790
- Thin film capacitive bolometer and temperature sensor Patent  
[NASA-CASE-NPO-10607] c 09 N71-27232
- Capacitive tank gaging apparatus being independent of liquid distribution  
[NASA-CASE-MFS-21629] c 14 N72-22442
- Capacitance multiplier and filter synthesizing network  
[NASA-CASE-NPO-11948-1] c 33 N74-32712
- Direct reading inductance meter  
[NASA-CASE-NPO-13792-1] c 35 N77-32455
- Dynamic capacitor having a peripherally driven element and system incorporating the same  
[NASA-CASE-XNP-02899-1] c 33 N79-21265
- CAPACITANCE SWITCHES**
- Electrical discharge apparatus for forming Patent  
[NASA-CASE-XMF-00375] c 15 N70-34249
- Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent  
[NASA-CASE-XGS-00381] c 09 N70-34819
- Feedback integrator with grounded capacitor Patent  
[NASA-CASE-XAC-10607] c 10 N71-23669
- CAPACITORS**
- Temperature sensitive capacitor device  
[NASA-CASE-XNP-09750] c 14 N69-39937
- Space vehicle electrical system Patent  
[NASA-CASE-XMF-00517] c 03 N70-34157
- Apparatus having coaxial capacitor structure for measuring fluid density Patent  
[NASA-CASE-XLE-00143] c 14 N70-36618
- Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent  
[NASA-CASE-XLE-01246] c 14 N71-10797
- Capacitor and method of making same Patent  
[NASA-CASE-LEW-10364-1] c 09 N71-13522
- Measurement of time differences between luminous events Patent  
[NASA-CASE-XLA-01987] c 23 N71-23976
- Ripple indicator  
[NASA-CASE-KSC-10162] c 09 N72-11225
- Thermoelectric radiometer utilizing polymer film  
[NASA-CASE-ARC-10138-1] c 14 N72-24477
- Screened circuit capacitors  
[NASA-CASE-LAR-10294-1] c 26 N72-28762
- Micrometeoroid analyzer  
[NASA-CASE-ARC-10443-1] c 14 N73-20477
- Insulated electrocardiographic electrodes --- without paste electrolyte  
[NASA-CASE-MSC-14339-1] c 05 N75-24716
- High temperature beryllium oxide capacitor  
[NASA-CASE-LEW-11938-1] c 33 N76-15373
- Energy storage apparatus  
[NASA-CASE-GSC-12030-1] c 44 N78-24608
- Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter  
[NASA-CASE-LEW-12791-1] c 33 N78-32341
- Dynamic capacitor having a peripherally driven element and system incorporating the same  
[NASA-CASE-XNP-02899-1] c 33 N79-21265
- CAPILLARY FLOW**
- Capillary radiator Patent  
[NASA-CASE-XLE-03307] c 33 N71-14035
- Fluid lubricant system Patent  
[NASA-CASE-XNP-03972] c 15 N71-23048
- Soldering device Patent  
[NASA-CASE-XLA-08911] c 15 N71-27214
- Capillary flow weld-bonding  
[NASA-CASE-LAR-11726-1] c 37 N76-27568
- CAPILLARY TUBES**
- Fluid flow restrictor Patent  
[NASA-CASE-NPO-10117] c 15 N71-15608
- Water separating system Patent  
[NASA-CASE-XMS-13052] c 14 N71-20427
- Mercury capillary interrupter Patent  
[NASA-CASE-XNP-02251] c 12 N71-20896
- Diffused waveguiding capillary tube with distributed feedback for a gas laser  
[NASA-CASE-NPO-13544-1] c 36 N76-18428
- Low loss splicing method for single-mode optical fiber  
[NASA-CASE-NPO-16294-1] c 74 N84-33179
- CARBAZOLES**
- Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent  
[NASA-CASE-NPO-10373] c 03 N71-18698
- CARBIDES**
- Absorbable-susceptor joining of ceramic surfaces  
[NASA-CASE-NPO-15640-1] c 27 N84-22748
- CARBOHYDRATES**
- Decontamination of petroleum products Patent  
[NASA-CASE-XNP-03835] c 06 N71-23499
- CARBON**
- Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety  
[NASA-CASE-ARC-11040-2] c 24 N78-27184
- Electrophotolysis oxidation system for measurement of organic concentration in water  
[NASA-CASE-MSC-16497-1] c 25 N82-12166
- Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-16027-1] c 33 N83-29595
- Oxidation resistant slurry coating for carbon-based materials  
[NASA-CASE-LEW-13923-1] c 24 N84-16266
- Apparatus and method for destructive removal of particles contained in flowing fluid  
[NASA-CASE-NPO-15426-1] c 35 N84-17555
- Diamondlike flakes  
[NASA-CASE-LEW-13837-2] c 24 N84-22696
- Chromium electrodes for REDOX cells  
[NASA-CASE-LEW-13853-1] c 44 N84-28205
- CARBON ARCS**
- Water cooled contactor for anode in carbon arc mechanism  
[NASA-CASE-XMS-03700] c 15 N69-24266
- CARBON COMPOUNDS**
- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00284] c 15 N71-16075
- Surfactant-assisted liquefaction of particulate carbonaceous substances  
[NASA-CASE-NPO-13904-1] c 25 N79-11152
- Diamondlike flake composites  
[NASA-CASE-LEW-13837-1] c 24 N84-22695
- CARBON DIOXIDE**
- Techniques for insulating cryogenic fuel containers Patent  
[NASA-CASE-XLA-01967] c 31 N70-42015
- Miniature carbon dioxide sensor and methods  
[NASA-CASE-MSC-13332-1] c 14 N72-21408
- Metabolic rate meter and method  
[NASA-CASE-MSC-12239-1] c 52 N79-21750
- CARBON DIOXIDE LASERS**
- Repetitively pulsed, wavelength selective laser Patent  
[NASA-CASE-ERC-10178] c 16 N71-24832
- Power supply for carbon dioxide lasers  
[NASA-CASE-GSC-11222-1] c 16 N73-32391
- Stark-effect modulation of CO<sub>2</sub> laser with NH<sub>2</sub>D  
[NASA-CASE-NPO-11945-1] c 36 N76-18427
- CARBON DIOXIDE REMOVAL**
- Catalyst cartridge for carbon dioxide reduction unit  
[NASA-CASE-LAR-10551-1] c 25 N74-12813
- Regenerable device for scrubbing breathable air of CO<sub>2</sub> and moisture without special heat exchanger equipment  
[NASA-CASE-MSC-14771-1] c 54 N77-32722
- Portable breathing system --- a breathing apparatus using a rebreathing system of heat exchangers for carbon dioxide removal  
[NASA-CASE-MSC-16182-1] c 54 N80-10799
- CARBON FIBER REINFORCED PLASTICS**
- Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-1] c 24 N79-16915
- Circumferential shaft seal  
[NASA-CASE-LEW-12119-1] c 37 N80-28711
- Curing agent for polyepoxides and epoxy resins and composites cured therewith --- preventing carbon fiber release  
[NASA-CASE-LEW-13226-1] c 27 N81-17260
- CARBON FIBERS**
- Method and device for detection of a substance --- determining carbon fiber release in fire situations  
[NASA-CASE-NPO-14940-1] c 33 N83-31954
- Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950
- CARBON MONOXIDE**
- Carbon monoxide monitor --- using real time operation  
[NASA-CASE-MFS-22060-1] c 35 N75-29380
- CARBON-CARBON COMPOSITES**
- Daze fasteners  
[NASA-CASE-LAR-13009-1] c 37 N83-29706
- CARBONACEOUS MATERIALS**
- Fluidized bed desulfurization  
[NASA-CASE-NPO-15924-1] c 25 N83-36122
- CARBONATES**
- Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099
- Synthesis of dawsonites --- for use in fire extinguishing operations  
[NASA-CASE-ARC-11326-1] c 25 N83-33977
- CARBONIZATION**
- Method of carbonizing polyacrylonitrile fibers  
[NASA-CASE-ARC-11261-1] c 24 N83-25789
- CARBONYL COMPOUNDS**
- Coal desulfurization --- using iron pentacarbonyl  
[NASA-CASE-NPO-14272-1] c 25 N81-33246
- CARBORANE**
- Process for the preparation of polycarbonylphosphazenes --- thermal insulation  
[NASA-CASE-ARC-11176-2] c 27 N81-27271
- Carboranicyclotriphosphazenes and their polymers --- thermal insulation  
[NASA-CASE-ARC-11176-1] c 27 N82-18389
- Carboranymethylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750
- CARBOXYL GROUP**
- Novel polycarboxylic prepolymeric materials and polymers thereof Patent  
[NASA-CASE-NPO-10596] c 06 N71-25929
- CARBOXYLIC ACIDS**
- Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids  
[NASA-CASE-LEW-11325-1] c 06 N73-27980
- Fluorinated esters of polycarboxylic acids  
[NASA-CASE-MFS-21040-1] c 06 N73-30098
- Metal phthalocyanine polymers  
[NASA-CASE-ARC-11405-1] c 27 N84-27884
- CARCINOGENS**
- Apparatus for producing three-dimensional recordings of fluorescence spectra Patent  
[NASA-CASE-XGS-01231] c 14 N70-41876
- CARDIAC VENTRICLES**
- Contour detector and data acquisition system for the left ventricular outline  
[NASA-CASE-ARC-10985-1] c 52 N79-10724
- CARDIOGRAPHY**
- Digital cardiotelemetry system Patent  
[NASA-CASE-XMS-02399] c 05 N71-22896

Reference apparatus for medical ultrasonic transducer  
[NASA-CASE-ARC-10753-1] c 54 N75-27760

**CARDIOLOGY**

Ratemeter  
[NASA-CASE-MFS-20418] c 14 N73-24473  
Myocardium wall thickness transducer and measuring method  
[NASA-CASE-NPO-13644-1] c 52 N76-29895

**CARDIOTACHOMETERS**

Digital computing cardiometer  
[NASA-CASE-MFS-20284-1] c 52 N74-12778

**CARDIOVASCULAR SYSTEM**

G conditioning suit Patent  
[NASA-CASE-XLA-02898] c 05 N71-20268  
Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent  
[NASA-CASE-XAC-05422] c 04 N71-23185  
Catheter tip force transducer for cardiovascular research  
[NASA-CASE-NPO-13643-1] c 52 N76-29896  
Medical clip  
[NASA-CASE-LAR-12650-1] c 52 N84-28388

**CARGO**

Portable pallet weight apparatus  
[NASA-CASE-GSC-12789-1] c 35 N83-13425

**CARRIER FREQUENCIES**

Bi-carrier demodulator with modulation Patent  
[NASA-CASE-XMF-01160] c 07 N71-11298  
Automatic carrier acquisition system  
[NASA-CASE-NPO-11628-1] c 07 N73-30113  
Demodulator for carrier transducers  
[NASA-CASE-NUC-10107-1] c 33 N74-17930  
Decision feedback loop for tracking a polyphase modulated carrier  
[NASA-CASE-NPO-13103-1] c 32 N74-20811  
Discriminator aided phase lock acquisition for suppressed carrier signals  
[NASA-CASE-NPO-14311-1] c 33 N82-29539

**CARRIER WAVES**

Variable frequency oscillator with temperature compensation Patent  
[NASA-CASE-XNP-03916] c 09 N71-28810  
Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems  
[NASA-CASE-GSC-11743-1] c 32 N75-24981

**CARRIERS**

Storage container for electronic devices Patent  
[NASA-CASE-MFS-20075] c 09 N71-26133  
Apparatus for conducting flow electrophoresis in the substantial absence of gravity  
[NASA-CASE-MFS-21394-1] c 34 N74-27744

**CARTESIAN COORDINATES**

Random function tracer Patent  
[NASA-CASE-XLA-01401] c 15 N71-21179

**CARTRIDGES**

Endless tape cartridge Patent  
[NASA-CASE-XGS-00769] c 14 N70-41647  
Endless tape transport mechanism Patent  
[NASA-CASE-XGS-01223] c 07 N71-10609  
Catalyst cartridge for carbon dioxide reduction unit  
[NASA-CASE-LAR-10551-1] c 25 N74-12813

**CARTS**

High production shuttle car system for coal mines  
[NASA-CASE-NPO-15949-1] c 37 N83-20155

**CASCADE CONTROL**

Reversible ring counter employing cascaded single SCR stages Patent  
[NASA-CASE-XGS-01473] c 09 N71-10673  
Synchronous dc direct drive system Patent  
[NASA-CASE-GSC-10065-1] c 10 N71-27136  
Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain  
[NASA-CASE-ARC-10192] c 09 N72-21245

**CASCADE FLOW**

Cascade plug nozzle --- for jet noise reduction  
[NASA-CASE-LAR-11674-1] c 07 N76-18117  
Thrust reverser for a long duct fan engine --- for turbofan engines  
[NASA-CASE-LEW-13199-1] c 07 N82-26293  
Degassifying and mixing apparatus for liquids --- potable water for spacecraft  
[NASA-CASE-MSC-18936-1] c 35 N83-29652

**CASE BONDED PROPELLANTS**

Solid propellant motor  
[NASA-CASE-NPO-11458A] c 20 N78-32179

**CASES (CONTAINERS)**

Non-magnetic battery case Patent  
[NASA-CASE-XGS-00886] c 03 N71-11053  
Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft  
[NASA-CASE-LEW-11227-1] c 73 N75-30876  
Portable heatable container  
[NASA-CASE-NPO-14237-1] c 44 N80-20808

**CASING**

Dual clearance squeeze film damper  
[NASA-CASE-LEW-13506-1] c 07 N84-22562

**CASSEGRAIN ANTENNAS**

Cassegrain antenna subreflector flange for suppressing ground noise Patent  
[NASA-CASE-XNP-00683] c 09 N70-35425  
Multi-feed cone Cassegrain antenna Patent  
[NASA-CASE-NPO-10539] c 07 N71-11285  
Millimeter wave radiometer for radio astronomy Patent  
[NASA-CASE-XNP-09832] c 30 N71-23723  
Dual frequency microwave reflex feed  
[NASA-CASE-NPO-13091-1] c 09 N73-12214  
Low loss dichroic plate  
[NASA-CASE-NPO-13171-1] c 32 N74-11000

**CASTING**

Hydraulic casting of liquid polymers Patent  
[NASA-CASE-XNP-07659] c 06 N71-22975  
Texturing polymer surfaces by transfer casting --- cardiovascular prosthesis  
[NASA-CASE-LEW-13120-1] c 27 N82-28440

**CASTINGS**

Method of making an apertured casting --- using duplicate mold  
[NASA-CASE-LEW-11169-1] c 37 N76-23570

**CATALYSIS**

Decomposition unit Patent  
[NASA-CASE-XMS-00583] c 28 N70-38504  
Apparatus for photon excited catalysis  
[NASA-CASE-NPO-13566-1] c 25 N77-32255  
Start up system for hydrogen generator used with an internal combustion engine  
[NASA-CASE-NPO-13849-1] c 28 N80-10374

**CATALYSTS**

Catalyst for growth of boron carbide single crystal whiskers  
[NASA-CASE-XHQ-03903] c 15 N69-21922  
Catalyst bed removing tool Patent  
[NASA-CASE-XFR-00811] c 15 N70-36901  
Ignition means for monopropellant Patent  
[NASA-CASE-XNP-00876] c 28 N70-41311  
Hydrogen leak detection device Patent  
[NASA-CASE-MFS-11537] c 14 N71-20442  
Catalyst cartridge for carbon dioxide reduction unit  
[NASA-CASE-LAR-10551-1] c 25 N74-12813  
Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides --- flame retardant foams  
[NASA-CASE-ARC-11107-1] c 25 N80-16116  
Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950  
Photoelectrochemical electrodes  
[NASA-CASE-NPO-15458-1] c 25 N84-12262  
Negative electrode catalyst for the iron-chromium REDOX energy storage system  
[NASA-CASE-LEW-14028-1] c 44 N84-32909

**CATALYTIC ACTIVITY**

Combustion engine system  
[NASA-CASE-NPO-14565-2] c 25 N83-19826  
Diesel engine catalytic combustor system --- aircraft engines  
[NASA-CASE-LEW-12995-1] c 37 N84-33808

**CATHETERIZATION**

Transducer circuit and catheter transducer Patent  
[NASA-CASE-ARC-10132-1] c 09 N71-24597  
Catheter tip force transducer for cardiovascular research  
[NASA-CASE-NPO-13643-1] c 52 N76-29896  
Ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-1] c 52 N83-21785  
Method of making an ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095

**CATHODE RAY TUBES**

Single or joint amplitude distribution analyzer Patent  
[NASA-CASE-XNP-01383] c 09 N71-10659  
Display for binary characters Patent  
[NASA-CASE-XGS-04987] c 08 N71-20571  
Electron beam tube containing a multiple cathode array employing indexing means for cathode substitution Patent  
[NASA-CASE-NPO-10625] c 09 N71-26182  
Color television systems using a single gun color cathode ray tube Patent  
[NASA-CASE-ERC-10098] c 09 N71-28618  
High contrast cathode ray tube  
[NASA-CASE-ERC-10468] c 09 N72-20206  
Digital video display system using cathode ray tube  
[NASA-CASE-NPO-11342] c 09 N72-25248  
CRT blanking and brightness control circuit  
[NASA-CASE-KSC-10647-1] c 10 N72-31273  
Display system  
[NASA-CASE-ERC-10350] c 14 N73-20474

Very high intensity light source using a cathode ray tube --- electron beams  
[NASA-CASE-XNP-01296] c 33 N75-27250

**CATHODES**

Ion thruster cathode Patent Application  
[NASA-CASE-LEW-10814-1] c 28 N70-35422  
Electronic cathode having a brush-like structure and a relatively thick oxide emissive coating Patent  
[NASA-CASE-XLE-04501] c 09 N71-23190  
Heat activated cell with alkali anode and alkali salt electrolyte Patent  
[NASA-CASE-LEW-11358] c 03 N71-26084  
Ion thruster with a combination keeper electrode and electron baffle  
[NASA-CASE-NPO-11880] c 28 N73-24783  
Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions  
[NASA-CASE-NPO-11806-1] c 44 N74-19693

**CATIONS**

Ionene membrane separator  
[NASA-CASE-NPO-11091] c 18 N72-22567  
Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104

**CAVITATION FLOW**

Semitoroidal diaphragm cavitating valve Patent  
[NASA-CASE-XNP-09704] c 12 N71-18615

**CAVITIES**

Black body cavity radiometer Patent  
[NASA-CASE-NPO-10810] c 14 N71-27323  
Method of coating through-holes Patent  
[NASA-CASE-XMF-05999] c 15 N71-29032  
Borrowing apparatus  
[NASA-CASE-XNP-07169] c 15 N73-32362  
Method of constructing dish ion thruster grids to provide hole array spacing compensation  
[NASA-CASE-LEW-11876-1] c 20 N76-21276  
Method of making hollow elastomeric bodies  
[NASA-CASE-NPO-13535-1] c 37 N76-31524  
Method and apparatus for producing concentric hollow spheres --- inertial confinement fusion targets  
[NASA-CASE-NPO-14596-1] c 31 N81-33319  
Cavity-backed, micro-strip dipole antenna array  
[NASA-CASE-MSC-18606-1] c 32 N82-11336  
High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523

**CAVITY RESONATORS**

Helical coaxial resonator RF filter  
[NASA-CASE-XGS-02816] c 07 N69-24323  
System for improving signal-to-noise ratio of a communication signal Patent Application  
[NASA-CASE-MSC-12259-1] c 07 N70-12616  
Temperature-compensating means for cavity resonator of amplifier Patent  
[NASA-CASE-XNP-00449] c 14 N70-35220  
Holder for crystal resonators Patent  
[NASA-CASE-XNP-03637] c 15 N71-21311  
System for improving signal-to-noise ratio of a communication signal  
[NASA-CASE-MSC-12259-2] c 07 N72-33146  
Infrared tunable laser  
[NASA-CASE-ARC-10463-1] c 09 N73-32111  
Tunable cavity resonator with ramp shaped supports  
[NASA-CASE-HQN-10790-1] c 36 N74-11313  
Laser apparatus  
[NASA-CASE-GSC-12237-1] c 36 N80-14384  
Laser Resonator  
[NASA-CASE-GSC-12565-1] c 36 N84-14509  
Maser cavity servo-tuning system  
[NASA-CASE-NPO-15890-1] c 36 N84-15536  
Off-axis coherently pumped laser  
[NASA-CASE-GSC-12592-1] c 36 N84-28065

**CELESTIAL BODIES**

Device for determining relative angular position between a spacecraft and a radiation emitting celestial body  
[NASA-CASE-GSC-11444-1] c 14 N73-28490  
Position determination systems --- using orbital antenna scan of celestial bodies  
[NASA-CASE-MSC-12593-1] c 17 N76-21250

**CELESTIAL NAVIGATION**

Radiant energy intensity measurement system Patent  
[NASA-CASE-XNP-06510] c 14 N71-23797

**CELL ANODES**

Heat activated cell Patent  
[NASA-CASE-LEW-11359] c 03 N71-28579  
Method of making emf cell  
[NASA-CASE-LEW-11359-2] c 03 N72-20034  
Electrically rechargeable REDOX flow cell  
[NASA-CASE-LEW-12220-1] c 44 N77-14581

**CELL DIVISION**

Process for control of cell division  
[NASA-CASE-LAR-10773-3] c 51 N77-25769

## CELLS

Mixture separation cell Patent  
[NASA-CASE-XMS-02952] c 18 N71-20742

## CELLS (BIOLOGY)

System for and method of freezing biological tissue  
[NASA-CASE-GSC-12173-1] c 51 N79-10694  
Method for separating biological cells — suspended in aqueous polymer systems  
[NASA-CASE-MFS-23883-1] c 51 N80-16715  
Electrophoresis device  
[NASA-CASE-MFS-25426-1] c 25 N83-10126

## CELLULOSE

Process of treating cellulosic membrane and alkaline with membrane separator  
[NASA-CASE-GSC-10019-1] c 44 N82-24641  
Separator for alkaline electric cells and method of making  
[NASA-CASE-GSC-10017-1] c 44 N82-24643  
Alkaline electrochemical cells and method of making  
[NASA-CASE-GSC-10349-1] c 44 N82-24845  
Aqueous alkali metal hydroxide insoluble cellulose ether membrane  
[NASA-CASE-XGS-05584-1] c 25 N82-29370

## CENTER OF GRAVITY

Portable pallet weight apparatus  
[NASA-CASE-GSC-12789-1] c 35 N83-13425

## CENTRAL PROCESSING UNITS

Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter  
[NASA-CASE-NPO-15519-1] c 32 N84-34651

## CENTRIFUGAL COMPRESSORS

Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-1] c 37 N79-23431  
Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-2] c 37 N84-28081

## CENTRIFUGAL FORCE

Counter pumping debris excluder and separator — gas turbine shaft seals  
[NASA-CASE-LEW-11855-1] c 07 N78-25090

## CENTRIFUGES

Centrifuge mounted motion simulator Patent  
[NASA-CASE-XAC-00399] c 11 N70-34815  
Separator Patent  
[NASA-CASE-XLA-00415] c 15 N71-16079  
Centrifugal lyophobic separator  
[NASA-CASE-LAR-10194-1] c 34 N74-30608  
Fluid control apparatus and method  
[NASA-CASE-LAR-11110-1] c 34 N75-26282  
Biocentrifuge system capable of exchanging specimen cages while in operational mode  
[NASA-CASE-MFS-23825-1] c 51 N81-32829

## CERAMIC BONDING

Method of making a diffusion bonded refractory coating Patent  
[NASA-CASE-XLE-01604-2] c 15 N71-15610  
Method of forming ceramic to metal seal Patent  
[NASA-CASE-XNP-01263-2] c 15 N71-26312

## CERAMIC COATINGS

Evaporant holder  
[NASA-CASE-XLA-03105] c 15 N69-27483  
Unfired-ceramic flame-resistant insulation and method of making the same Patent  
[NASA-CASE-XMF-01030] c 18 N70-41583  
Ceramic insulation for radiant heating environments and method of preparing the same Patent  
[NASA-CASE-MFS-14253] c 33 N71-24858  
Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28729  
Two-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-1] c 27 N76-22377  
Three-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-2] c 27 N76-23426  
Spray coating apparatus having a rotatable workpiece holder  
[NASA-CASE-ARC-11110-1] c 37 N82-24492  
Laser surface fusion of plasma sprayed ceramic turbine seals  
[NASA-CASE-LEW-13269-1] c 18 N83-20996  
Thermal barrier coating system having improved adhesion  
[NASA-CASE-LEW-1335901] c 27 N83-31855

## CERAMIC NUCLEAR FUELS

Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28729

## CERAMICS

Transpiration cooled turbine blade manufactured from wires Patent  
[NASA-CASE-XLE-00020] c 15 N70-33226  
Foamed in place ceramic refractory insulating material Patent  
[NASA-CASE-XGS-02435] c 18 N71-22998  
Method for fiberizing ceramic materials Patent  
[NASA-CASE-XNP-00597] c 18 N71-23088  
Method of coating through-holes Patent  
[NASA-CASE-XMF-05999] c 15 N71-29032

Extrusion can  
[NASA-CASE-NPO-10812] c 15 N73-13464  
Thermal shock resistant hafnia ceramic material  
[NASA-CASE-LAR-10894-1] c 18 N73-14584

Thermal shock and erosion resistant tantalum carbide ceramic material  
[NASA-CASE-LAR-11902-1] c 27 N78-17206

High temperature resistant cermet and ceramic compositions — for thermal resistant insulators and refractory coatings  
[NASA-CASE-NPO-13690-1] c 27 N78-19302

Thermal insulation attaching means — adhesive bonding of felt vibration insulators under ceramic tiles  
[NASA-CASE-MSC-12619-2] c 27 N79-12221

High temperature resistant cermet and ceramic compositions  
[NASA-CASE-NPO-13690-2] c 27 N79-14213

Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-2] c 37 N82-26674

Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453

Absorbable-susceptor joining of ceramic surfaces  
[NASA-CASE-NPO-15640-1] c 27 N84-22748  
Method of fabricating an abradable gas path seal  
[NASA-CASE-LEW-13269-2] c 37 N84-22957

Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886

## CEREBROSPINAL FLUID

Ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-1] c 52 N83-21785

Method of making an ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095

## CERENKOV RADIATION

Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423

## CERMETS

Process of casting heavy slips Patent  
[NASA-CASE-XLE-00108] c 15 N71-16076

Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28729

Cermet composition and method of fabrication — heat resistant alloys and powders  
[NASA-CASE-NPO-13120-1] c 27 N76-15311

High temperature oxidation resistant cermet compositions  
[NASA-CASE-NPO-13666-1] c 27 N77-13217

High temperature resistant cermet and ceramic compositions — for thermal resistant insulators and refractory coatings  
[NASA-CASE-NPO-13690-1] c 27 N78-19302

High temperature resistant cermet and ceramic compositions  
[NASA-CASE-NPO-13690-2] c 27 N79-14213

Coating with overlay metallic-cermet alloy systems  
[NASA-CASE-LEW-13639-2] c 26 N84-27855

Overlay metallic-cermet alloy coating systems  
[NASA-CASE-LEW-13639-1] c 26 N84-33555

## CESIUM

Method for removing oxygen impurities from cesium Patent  
[NASA-CASE-XNP-04262-2] c 17 N71-26773

Method of producing I-123 — by bombardment of cesium causing spallation  
[NASA-CASE-LEW-11390-2] c 25 N76-27383

## CESIUM DIODES

Thermionic tantalum emitter doped with oxygen Patent  
Application  
[NASA-CASE-NPO-11138] c 03 N70-34846

Cavity emitter for thermionic converter Patent  
[NASA-CASE-NPO-10412] c 09 N71-28421

Thermionic energy converters  
[NASA-CASE-LEW-12443-1] c 44 N83-32175

## CESIUM ENGINES

Variable thrust ion engine utilizing thermally decomposable solid fuel Patent  
[NASA-CASE-XMF-00923] c 28 N70-36802

Method of producing porous tungsten ionizers for ion rocket engines Patent  
[NASA-CASE-XLE-00455] c 28 N70-38197

## CESIUM VAPOR

Electric power generation system directory from laser power  
[NASA-CASE-NPO-13308-1] c 36 N75-30524

## CHALCOGENIDES

Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019

## CHAMBERS

Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749

## CHANNEL FLOW

Method of making a regeneratively cooled combustion chamber Patent  
[NASA-CASE-XLE-00150] c 28 N70-41818

Heated element fluid flow sensor Patent  
[NASA-CASE-MSC-12084-1] c 12 N71-17569

Multicolor printing plate joining  
[NASA-CASE-LEW-13598-1] c 35 N84-22930

Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692

## CHANNELS (DATA TRANSMISSION)

Automatic fault correction system for parallel signal channels Patent  
[NASA-CASE-XNP-03263] c 09 N71-18843

Helical recorder arrangement for multiple channel recording on both sides of the tape  
[NASA-CASE-GSC-10614-1] c 09 N72-11224

Asynchronous, multiplexing, single line transmission and recovery data system — for satellite use  
[NASA-CASE-NPO-13321-1] c 32 N75-26195

High-speed data link for moderate distances and noisy environments  
[NASA-CASE-NPO-14152-1] c 32 N80-18252

## CHARACTER RECOGNITION

Automatic character skew and spacing checking network — of digital tape drive systems  
[NASA-CASE-GSC-11925-1] c 33 N76-18353

System and method for character recognition  
[NASA-CASE-NPO-11337-1] c 74 N81-19896

## CHARGE COUPLED DEVICES

CCD correlated quadruple sampling processor  
[NASA-CASE-NPO-14426-1] c 33 N79-17134

Multispectral imaging and analysis system — using charge coupled devices and linear arrays  
[NASA-CASE-NPO-13691-1] c 43 N79-17288

CCD correlated quadruple sampling processor  
[NASA-CASE-NPO-14426-1] c 33 N81-27396

Programmable scan/read circuitry for charge coupled device imaging detectors — spacecraft attitude control and star trackers  
[NASA-CASE-NPO-15345-1] c 74 N84-23247

Laser pulse detection method and apparatus  
[NASA-CASE-NPO-16030-1] c 36 N84-25037

## CHARGE DISTRIBUTION

Method of erasing target material of a vidicon tube or the like Patent  
[NASA-CASE-XNP-06028] c 09 N71-23189

Charge storage diode modulators and demodulators  
[NASA-CASE-NPO-10189-1] c 33 N77-21314

## CHARGE EXCHANGE

Ion beam thruster shield  
[NASA-CASE-LEW-12082-1] c 20 N77-10148

## CHARGE TRANSFER

Magnetic counter Patent  
[NASA-CASE-XNP-08836] c 09 N71-12515

Pressure transducer — using a monomeric charge transfer complex sensor  
[NASA-CASE-NPO-11150] c 35 N78-17359

## CHARGE TRANSFER DEVICES

Charge transfer reaction laser with preionization means  
[NASA-CASE-NPO-13945-1] c 36 N78-27402

Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403

Image readout device with electronically variable spatial resolution  
[NASA-CASE-LAR-12633-1] c 33 N82-24416

## CHARGED PARTICLES

Method of forming thin window drifted silicon charged particle detector Patent  
[NASA-CASE-XLE-00808] c 24 N71-10560

Electrostatic charged particle analyzer having deflection members shaped according to the periodic voltage applied thereto Patent  
[NASA-CASE-XAC-05506-1] c 24 N71-16095

Electrostatic collector for charged particles  
[NASA-CASE-LEW-11192-1] c 09 N73-13208

Method and apparatus for neutralizing potentials induced on spacecraft surfaces  
[NASA-CASE-GSC-11963-1] c 33 N77-10429

Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423

Apparatus for measuring charged particle beam  
[NASA-CASE-MFS-25641-1] c 72 N84-28575

## CHARGING

Synchronous orbit battery cyclor  
[NASA-CASE-GSC-11211-1] c 03 N72-25020

## CHARRING

- Ablation sensor  
[NASA-CASE-XLA-01781] c 14 N69-39975  
Ablation sensor Patent  
[NASA-CASE-XLA-01794] c 33 N71-21586

## CHASSIS

- Chassis unit insert tightening-extract device  
[NASA-CASE-XMS-01077-1] c 37 N79-33467

## CHECKOUT

- Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15566  
Rapid activation and checkout device for batteries  
[NASA-CASE-MFS-22749-1] c 44 N76-14601  
Decommutator patchboard verifier  
[NASA-CASE-KSC-11065-1] c 33 N81-26359

## CHELATES

- Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent  
[NASA-CASE-LAR-10173-1] c 27 N71-14090  
Chelate-modified polymers for atmospheric gas chromatography  
[NASA-CASE-ARC-11154-1] c 25 N80-23383

## CHEMICAL ANALYSIS

- Analytical test apparatus and method for determining oxide content of alkali metal Patent  
[NASA-CASE-XLE-01897] c 06 N71-23527  
Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754  
Method for determining presence of OH in magnesium oxide  
[NASA-CASE-NPO-10774] c 06 N72-17095  
Micrometeoroid analyzer  
[NASA-CASE-ARC-10443-1] c 14 N73-20477  
Chromato-fluorographic drug detector — device for detecting and recording fluorescent properties of materials  
[NASA-CASE-ARC-10633-1] c 25 N74-26947  
Amino acid analysis  
[NASA-CASE-NPO-12130-1] c 25 N75-14844  
Gas chromatograph injection system  
[NASA-CASE-ARC-10344-2] c 35 N75-26334  
Alkaline electrochemical cells and method of making  
[NASA-CASE-GSC-10349-1] c 44 N82-24645  
Particle analyzing method and apparatus  
[NASA-CASE-NPO-15292-1] c 35 N83-27184  
System for monitoring physical characteristics of fluids  
[NASA-CASE-NPO-15400-1] c 34 N83-31993

## CHEMICAL AUXILIARY POWER UNITS

- Ion-exchange membrane with platinum electrode assembly Patent  
[NASA-CASE-XMS-02063] c 03 N71-29044

## CHEMICAL BONDS

- Fluorine-containing polyformals  
[NASA-CASE-XMF-06900-1] c 27 N79-21191  
Perfluoroalkyl polytriazines containing pendent iododifluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016  
Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-3] c 24 N84-22698  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-4] c 24 N84-22699  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-5] c 24 N84-22700  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-6] c 24 N84-22701

## CHEMICAL COMPOSITION

- Phototropic composition of matter  
[NASA-CASE-XGS-03736] c 14 N72-22443  
Nitramine propellants — gun propellant burning rate  
[NASA-CASE-NPO-14103-1] c 28 N78-31255  
Composition and method for making polyimide resin-reinforced fabric  
[NASA-CASE-LEW-12933-1] c 27 N81-19296  
Non-toxic invert analog glass compositions of high modulus  
[NASA-CASE-HQN-10328-2] c 27 N82-29454  
High modulus rare earth and beryllium containing silicate glass compositions — for glass reinforcing fibers  
[NASA-CASE-HQN-10595-1] c 27 N82-29455  
Method and apparatus for mapping the distribution of chemical elements in an extended medium  
[NASA-CASE-GSC-12808-1] c 45 N83-20446  
Low temperature cross linking polyimides  
[NASA-CASE-LEW-12876-2] c 27 N83-29392

## CHEMICAL COMPOUNDS

- Ultraviolet atomic emission detector  
[NASA-CASE-HQN-10756-1] c 14 N72-25428

## CHEMICAL ELEMENTS

- Apparatus for remote handling of materials — mixing or analyzing dangerous chemicals  
[NASA-CASE-LAR-10634-1] c 37 N74-18123

## CHEMICAL ENGINEERING

- Process for the preparation of calcium superoxide  
[NASA-CASE-ARC-11053-1] c 25 N79-10162

## CHEMICAL EXPLOSIONS

- Hypervelocity gun — using both electric and chemical energy for projectile propulsion  
[NASA-CASE-XLE-03186-1] c 09 N79-21084

## CHEMICAL MACHINING

- Masking device Patent  
[NASA-CASE-XNP-02092] c 15 N70-42033

## CHEMICAL PROPERTIES

- Method of producing alternating ether siloxane copolymers Patent  
[NASA-CASE-XMF-02584] c 06 N71-20905  
Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099  
Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-1] c 06 N73-33076  
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids  
[NASA-CASE-MFS-22411-1] c 37 N74-21058

## CHEMICAL REACTIONS

- Process for interfacial polymerization of pyromellitic dianhydride and 1,2,4,5-tetraamino-benzene Patent  
[NASA-CASE-XLA-03104] c 06 N71-11235  
Synthesis of polymeric schiff bases by schiff-base exchange reactions Patent  
[NASA-CASE-XMF-08651] c 06 N71-11236  
Preparation of ordered poly /arylenesiloxane/ polymers  
[NASA-CASE-XMF-10753] c 06 N71-11237  
Imidazopyrrolone/imide copolymers Patent  
[NASA-CASE-XLA-08802] c 06 N71-11238  
High resolution developing of photosensitive resists Patent  
[NASA-CASE-XGS-04993] c 14 N71-17574  
Inorganic solid film lubricants Patent  
[NASA-CASE-XMF-03988] c 15 N71-21403  
Process for preparation of dianilinosilanes Patent  
[NASA-CASE-XMF-06409] c 06 N71-23230  
Aromatic diamine-aromatic dialdehyde high molecular weight schiff base polymers prepared in a monofunctional schiff base Patent  
[NASA-CASE-XMF-03074] c 06 N71-24740  
Hydroxy terminated perfluoro ethers Patent  
[NASA-CASE-NPO-10768] c 06 N71-27254  
Metal containing polymers from cyclic tetrameric phenylphosphonitriamides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363  
Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372  
Epoxy-aziridine polymer product Patent  
[NASA-CASE-NPO-10701] c 06 N71-28620  
Process for preparation of high-molecular-weight polyaryloxysilanes Patent  
[NASA-CASE-XMF-08674] c 06 N71-28807  
Trialkyl-dihalotantalum and niobium compounds Patent  
[NASA-CASE-XNP-04023] c 06 N71-28808  
Method of making foamed materials in zero gravity  
[NASA-CASE-XMF-09902] c 15 N72-11387  
Preparation of high purity copper fluoride  
[NASA-CASE-LEW-10794-1] c 06 N72-17093  
Firefly pump-metering system  
[NASA-CASE-GSC-10218-1] c 15 N72-21465  
Apparatus for producing metal powders  
[NASA-CASE-XLE-06461-2] c 17 N72-28535  
Nondestructive spot test method for titanium and titanium alloys  
[NASA-CASE-LAR-10539-1] c 17 N73-12547  
Self-cycling fluid heater  
[NASA-CASE-MS-15567-1] c 33 N73-16918  
Method of forming difunctional polyisobutylene  
[NASA-CASE-NPO-10893] c 27 N73-22710  
Polyurethanes from fluoroalkyl propyleneglycol polyethers  
[NASA-CASE-MFS-10506] c 06 N73-30100  
Fluorine containing polyurethane  
[NASA-CASE-MFS-10509] c 06 N73-30103  
Novel polymers and method of preparing same  
[NASA-CASE-NPO-10998-1] c 06 N73-32029  
Polyimide foam for the thermal insulation and fire protection  
[NASA-CASE-ARC-10484-1] c 27 N74-12812  
Intumescent composition, foamed product prepared therewith and process for making same  
[NASA-CASE-ARC-10304-2] c 27 N74-27037  
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-26043  
Utilization of oxygen difluoride for syntheses of fluoropolymers  
[NASA-CASE-NPO-12061-1] c 27 N76-16228

Method for detecting pollutants — through chemical reactions and heat treatment

- [NASA-CASE-LAR-11405-1] c 45 N76-31714  
Process for preparing higher oxides of the alkali and alkaline earth metals  
[NASA-CASE-ARC-10992-1] c 26 N78-32229  
An improved synthesis of 2,4,8,10-tetroxaspiro (5.5) undecane  
[NASA-CASE-ARC-11243-2] c 23 N80-31472  
Method for preparing addition type polyimide prepreps  
[NASA-CASE-LAR-12054-2] c 27 N81-14078  
The 1,1,1-triaryl-2,2,2-trifluoroethanes and process for their synthesis  
[NASA-CASE-ARC-11097-1] c 25 N82-24312  
Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353  
Apparatus and method to keep the walls of a free space reactor free from deposits of solid materials  
[NASA-CASE-NPO-15851-1] c 73 N83-12986  
Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811  
Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-2] c 27 N83-30651  
Sulfone-ester polymers containing pendent ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987

## CHEMICAL REACTORS

- Chemical vapor deposition reactor — providing uniform film thickness  
[NASA-CASE-NPO-13850-1] c 25 N79-28253  
Sodium storage and injection system  
[NASA-CASE-NPO-14384-1] c 37 N80-10494  
Method of producing silicon — gas phase reactor multiple injector liquid feed system  
[NASA-CASE-NPO-14382-1] c 31 N80-18231  
Fluidized bed coal combustion reactor  
[NASA-CASE-NPO-14273-1] c 25 N82-11144  
Solar heated fluidized bed gasification system  
[NASA-CASE-NPO-15071-1] c 44 N82-16475  
Thermal reactor — liquid silicon production from silane gas  
[NASA-CASE-NPO-14369-1] c 44 N83-10501  
Apparatus and method to keep the walls of a free space reactor free from deposits of solid materials  
[NASA-CASE-NPO-15851-1] c 73 N83-12986  
Pressure letdown method and device for coal conversion systems  
[NASA-CASE-NPO-15100-1] c 44 N84-14583  
Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912

## CHEMICAL TESTS

- Nondestructive spot test method for titanium and titanium alloys  
[NASA-CASE-LAR-10539-1] c 17 N73-12547  
Nondestructive spot test method for magnesium and magnesium alloys  
[NASA-CASE-LAR-10953-1] c 17 N73-27446

## CHEMILUMINESCENCE

- Method and apparatus for eliminating luminol interference material  
[NASA-CASE-MS-16260-1] c 51 N80-16714

## CHEMOTHERAPY

- Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-2] c 52 N81-14613

## CHIPS (ELECTRONICS)

- Head for high speed spinner having a vacuum chuck — holding silicon dioxide chips for etching  
[NASA-CASE-NPO-15227-1] c 37 N81-33482  
Liquid immersion apparatus for minute articles  
[NASA-CASE-MFS-25363-1] c 37 N82-12441

## CHIRP SIGNALS

- Method for shaping and aiming narrow beams — sonar mapping and target identification  
[NASA-CASE-NPO-14632-1] c 32 N82-18443

## CHLORINATION

- Specialized halogen generator for purification of water Patent  
[NASA-CASE-XLA-08913] c 14 N71-28933  
Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371  
Hydrodesulfurization of chlorinated coal  
[NASA-CASE-NPO-15304-1] c 25 N83-31743

## CHLOROPRENE RESINS

- Flexible fire retardant polyisocyanate modified neoprene foam — for thermal protective devices  
[NASA-CASE-ARC-10180-1] c 27 N74-12814

## CHOKES

- Current dependent filter inductance  
[NASA-CASE-ERC-10139] c 09 N72-17154

## CHOKES (RESTRICTIONS)

- Variably positioned guide vanes for aerodynamic choking  
[NASA-CASE-LAR-10842-1] c 07 N74-31270

**CHOLESTEROL**

Reduction of blood serum cholesterol  
[NASA-CASE-NPO-12119-1] c 52 N75-15270

**CHROMATOGRAPHY**

Chromato-fluorographic drug detector -- device for detecting and recording fluorescent properties of materials  
[NASA-CASE-ARC-10633-1] c 25 N74-26947

**CHROMIUM**

Selective coating for solar panels -- using black chrome and black nickel  
[NASA-CASE-LEW-12159-1] c 44 N78-19599  
Efficiency of silicon solar cells containing chromium  
[NASA-CASE-NPO-15179-1] c 44 N82-26777  
Process for improving moisture resistance of epoxy resins by addition of chromium ions  
[NASA-CASE-LAR-13226-1] c 27 N84-20700  
Negative electrode catalyst for the iron-chromium REDOX energy storage system  
[NASA-CASE-LEW-14028-1] c 44 N84-32909

**CHROMIUM ALLOYS**

Method of heat treating age-hardenable alloys  
[NASA-CASE-XNP-01311] c 26 N75-29236  
Nickel ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505

**CHROMIUM COMPOUNDS**

Chromium electrodes for REDOX cells  
[NASA-CASE-LEW-13653-1] c 44 N84-28205

**CHROMOSOMES**

Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694

**CINEMATOGRAPHY**

High speed photo-optical time recording  
[NASA-CASE-KSC-10294] c 14 N72-18411  
Holographic motion picture camera with Doppler shift compensation  
[NASA-CASE-MFS-22517-1] c 35 N76-18402

**CIRCUIT BOARDS**

Electrical feed-through connection for printed circuit boards and printed cable  
[NASA-CASE-XMF-01483] c 14 N69-27431  
Printed cable connector Patent  
[NASA-CASE-XMF-00369] c 09 N70-36494  
Printed circuit board with bellows rivet connection Patent  
[NASA-CASE-XNP-05082] c 15 N70-41960  
Electrical spot terminal assembly Patent  
[NASA-CASE-NPO-10034] c 15 N71-17685  
Polyimide resin-fiberglass cloth laminates for printed circuit boards  
[NASA-CASE-MFS-20408] c 18 N73-12604  
Circuit board package with wedge shaped covers  
[NASA-CASE-MFS-21919-1] c 10 N73-25243  
Tool for use in lifting pin supported objects  
[NASA-CASE-NPO-13157-1] c 37 N74-32918  
Shock absorbing mount for electrical components  
[NASA-CASE-NPO-13253-1] c 37 N75-18573  
Connector -- for connecting circuits on different layers of multilayer printed circuit boards  
[NASA-CASE-LAR-11709-1] c 37 N76-27567  
Traveling wave tube circuit  
[NASA-CASE-LEW-12013-1] c 33 N79-10339  
Beam forming network  
[NASA-CASE-NPO-15743-1] c 32 N83-19969  
High stability amplifier  
[NASA-CASE-GSC-12646-1] c 33 N83-34191

**CIRCUIT BREAKERS**

Mercury capillary interrupter Patent  
[NASA-CASE-XNP-02251] c 12 N71-20896  
Diode and protection fuse unit Patent  
[NASA-CASE-XKS-03381] c 09 N71-22796  
Separation simulator Patent  
[NASA-CASE-XKS-04631] c 10 N71-23663  
Detenting servomotor Patent  
[NASA-CASE-NXP-06936] c 15 N71-24695  
Circuit breaker utilizing magnetic latching relays Patent  
[NASA-CASE-MSC-11277] c 09 N71-29008  
Multiple circuit protector device  
[NASA-CASE-XMS-02744] c 33 N75-27249  
Solar concentrator protective system  
[NASA-CASE-NPO-15662-1] c 44 N84-28204

**CIRCUIT DIAGRAMS**

Excitation and detection circuitry for a flux responsive magnetic head  
[NASA-CASE-XNP-04183] c 09 N69-24329  
Signal multiplexer  
[NASA-CASE-XGS-01110] c 07 N69-24334  
Ring counter  
[NASA-CASE-XGS-03095] c 09 N69-27463  
Solid state switch  
[NASA-CASE-XNP-09228] c 09 N69-27500

Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent

[NASA-CASE-XGS-00381] c 09 N70-34819  
Frequency shift keyed demodulator Patent  
[NASA-CASE-XGS-02889] c 07 N71-11282  
Difference circuit Patent  
[NASA-CASE-XNP-08274] c 10 N71-13537  
High voltage transistor circuit Patent  
[NASA-CASE-XNP-06937] c 09 N71-19516  
Weld control system using thermocouple wire Patent  
[NASA-CASE-MFS-06074] c 15 N71-20393  
Correlation function apparatus Patent  
[NASA-CASE-XNP-00746] c 07 N71-21476  
Diode and protection fuse unit Patent  
[NASA-CASE-XKS-03381] c 09 N71-22796  
Buck boost voltage regulation circuit Patent  
[NASA-CASE-GSC-10735-1] c 10 N71-26085  
Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11256  
Microcircuit negative cutter  
[NASA-CASE-XLA-09843] c 15 N72-27485  
Self-regulating proportionally controlled heating apparatus and technique  
[NASA-CASE-GSC-11752-1] c 77 N75-20140  
Symmetrical odd-modulus frequency divider  
[NASA-CASE-NPO-13426-1] c 33 N75-31330  
Trielectrode capacitive pressure transducer  
[NASA-CASE-ARC-10711-2] c 33 N76-21390  
Frequency discriminator and phase detector circuit  
[NASA-CASE-NPO-11515-1] c 33 N77-13315

**CIRCUIT PROTECTION**

Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N69-25146  
Protective circuit of the spark gap type  
[NASA-CASE-XAC-08981] c 09 N69-39897  
Electrical load protection device Patent  
[NASA-CASE-MSC-12135-1] c 09 N71-12526  
Apparatus for overcurrent protection of a push-pull amplifier Patent  
[NASA-CASE-MSC-12033-1] c 09 N71-13531  
Method of coating circuit paths on printed circuit boards with solder Patent  
[NASA-CASE-XMF-01599] c 09 N71-20705  
Power supply circuit Patent  
[NASA-CASE-XMS-00913] c 10 N71-23543  
Selective plating of etched circuits without removing previous plating Patent  
[NASA-CASE-XGS-03120] c 15 N71-24047  
Failure sensing and protection circuit for converter networks Patent  
[NASA-CASE-GSC-10114-1] c 10 N71-27366  
Power responsive overload sensing circuit Patent  
[NASA-CASE-GSC-10667-1] c 10 N71-33129  
Saturation current protection apparatus for saturable core transformers  
[NASA-CASE-ERC-10075-2] c 09 N72-22196  
Electrical insulating layer process  
[NASA-CASE-LEW-10489-1] c 15 N72-25447  
Phase protection system for ac power lines  
[NASA-CASE-MSC-17832-1] c 33 N74-14956  
Overvoltage protection network  
[NASA-CASE-ARC-10197-1] c 33 N74-17929  
Shock absorbing mount for electrical components  
[NASA-CASE-NPO-13253-1] c 37 N75-18573  
Multiple circuit protector device  
[NASA-CASE-XMS-02744] c 33 N75-27249  
Multi-cell battery protection system  
[NASA-CASE-LEW-12039-1] c 44 N78-14625  
Fused switch  
[NASA-CASE-XMS-01244-1] c 33 N79-33393  
Base drive for paralleled inverter systems  
[NASA-CASE-NPO-14163-1] c 33 N81-14220  
Shielded conductor cable system  
[NASA-CASE-MSC-12745-1] c 33 N81-27397  
Push-pull converter with energy saving circuit for protecting switching transistors from peak power stress  
[NASA-CASE-NPO-14316-1] c 33 N81-33404

**CIRCUITS**

Connector - Electrical  
[NASA-CASE-XLA-01288] c 09 N69-21470  
Binary magnetic memory device Patent  
[NASA-CASE-XGS-00174] c 08 N70-34743  
Electronic motor control system Patent  
[NASA-CASE-XMF-01129] c 09 N70-38712  
Starting circuit for vapor lamps and the like Patent  
[NASA-CASE-XNP-01058] c 09 N71-12540  
Drift compensation circuit for analog to digital converter Patent  
[NASA-CASE-XNP-04780] c 08 N71-19687  
High voltage divider system Patent  
[NASA-CASE-XLE-02008] c 09 N71-21583  
Solar cell and circuit array and process for nullifying magnetic fields Patent  
[NASA-CASE-XGS-03390] c 03 N71-23187

Dual polarity full wave dc motor drive Patent  
[NASA-CASE-XNP-07477] c 09 N71-26092  
Temperature regulation circuit Patent  
[NASA-CASE-XNP-02792] c 14 N71-28958  
Pulse generating circuit employing switch means on ends of delay line for alternately charging and discharging same Patent  
[NASA-CASE-XNP-00745] c 10 N71-28960  
Digital pulse width selection circuit Patent  
[NASA-CASE-XLA-07788] c 09 N71-29139  
Power responsive overload sensing circuit Patent  
[NASA-CASE-GSC-10667-1] c 10 N71-33129  
Pulsed excitation voltage circuit for transducers  
[NASA-CASE-FRC-10038] c 09 N72-22200  
Thermal to electrical power conversion system with solid-state switches with Seebeck effect compensation  
[NASA-CASE-NPO-11388] c 03 N72-23048  
Controllable load insensitive power converters  
[NASA-CASE-ERC-10268] c 09 N72-25252  
Fail-safe multiple transformer circuit configuration  
[NASA-CASE-NPO-11078] c 09 N72-25262  
Microcircuit negative cutter  
[NASA-CASE-XLA-09843] c 15 N72-27485  
Infinite range electronics gain control circuit  
[NASA-CASE-GSC-10766-1] c 10 N72-28241  
Active tuned circuit  
[NASA-CASE-GSC-11340-1] c 10 N72-33230  
Heat detection and compositions and devices therefor  
[NASA-CASE-NPO-10784-1] c 14 N73-14428  
Driving lamps by induction  
[NASA-CASE-MFS-21214-1] c 09 N73-30181  
Circuit for detecting initial systole and diastolic notch -- for monitoring arterial pressure  
[NASA-CASE-LEW-11581-1] c 54 N75-13531  
Peak holding circuit for extremely narrow pulses  
[NASA-CASE-MSC-14129-1] c 33 N75-18479  
High voltage distributor  
[NASA-CASE-GSC-11849-1] c 33 N76-16332  
Circuit for automatic load sharing in parallel converter modules  
[NASA-CASE-NPO-14056-1] c 33 N79-24257  
Process for preparing high temperature polyimide film laminates  
[NASA-CASE-LAR-12742-1] c 24 N81-12174  
Method and apparatus for fabricating improved solar cell modules  
[NASA-CASE-NPO-14416-1] c 44 N81-14389  
Control system for an induction motor with energy recovery  
[NASA-CASE-MFS-25477-1] c 33 N84-14424  
Ladder supported ring bar circuit  
[NASA-CASE-LEW-13570-1] c 33 N84-16452  
Programmable scan/read circuitry for charge coupled device imaging detectors -- spacecraft attitude control and star trackers  
[NASA-CASE-NPO-15345-1] c 74 N84-23247  
Dielectric based submillimeter backward wave oscillator circuit  
[NASA-CASE-LEW-13736-1] c 33 N84-27974  
Measurement amplifier  
[NASA-CASE-MFS-25868-1] c 33 N84-32680  
A new solar cell design for improved open circuit voltage and high efficiency  
[NASA-CASE-NPO-16126-1] c 44 N84-32811

**CIRCULAR CONES**

Optical inspection apparatus Patent  
[NASA-CASE-XMF-00462] c 14 N70-34298

**CIRCULAR CYLINDERS**

Light intensity modulator controller Patent  
[NASA-CASE-XMS-04300] c 09 N71-19479

**CIRCULAR POLARIZATION**

Electromagnetic polarization systems and methods Patent  
[NASA-CASE-GSC-10021-1] c 09 N71-24595  
Virtual wall slot circularly polarized planar array antenna  
[NASA-CASE-NPO-10301] c 07 N72-11148  
Circularly polarized antenna  
[NASA-CASE-ERC-10214] c 09 N72-31235

**CIRCULAR TUBES**

Evacuated displacement compression molding  
[NASA-CASE-LAR-10782-1] c 31 N74-14133

**CIRCULATION CONTROL AIRFOILS**

Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400

**CIRCULATORS (PHASE SHIFT CIRCUITS)**

Circulator having quarter wavelength resonant post and parametric amplifier circuits utilizing the same Patent  
[NASA-CASE-XNP-02140] c 09 N71-23097  
Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures  
[NASA-CASE-NPO-14254-1] c 36 N80-18372

**CLAMPING CIRCUITS**

Amplifier clamping circuit for horizon scanner Patent  
[NASA-CASE-XGS-01784] c 10 N71-20782

## CLAMPS

## CLAMPS

- Portable alignment tool Patent  
[NASA-CASE-XMF-01452] c 15 N70-41371
- Hydraulic grip Patent  
[NASA-CASE-XLA-05100] c 15 N71-17696
- Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02184] c 15 N71-20813
- Central spar and module joint Patent  
[NASA-CASE-XNP-02341] c 15 N71-21531
- Quick attach mechanism Patent  
[NASA-CASE-XFR-05421] c 15 N71-22994
- Reusable thermal cycling clamp --- holders for directional solidification experiments  
[NASA-CASE-LAR-12868-1] c 27 N82-18390
- Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744
- Clamp-mount device  
[NASA-CASE-MFS-25510-1] c 37 N84-16560

## CLAYS

- Inorganic thermal control pigment Patent  
[NASA-CASE-XNP-02139] c 18 N71-24184

## CLEAN ROOMS

- Air conditioned suit  
[NASA-CASE-LAR-10076-1] c 05 N73-20137

## CLEANERS

- Purge device for thrust engines Patent  
[NASA-CASE-XMS-04826] c 28 N71-28849
- Noncontaminating swabs  
[NASA-CASE-MFS-18100] c 15 N72-11390

## CLEANING

- Disk pack cleaning table Patent Application  
[NASA-CASE-LAR-10590-1] c 15 N70-26819
- System for sterilizing objects --- cleaning space vehicle systems  
[NASA-CASE-KSC-11085-1] c 54 N81-24724

## CLEAR AIR TURBULENCE

- Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437
- Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028
- CAT altitude avoidance system  
[NASA-CASE-NPO-15351-1] c 06 N83-10040

## CLEARANCES

- Active clearance control system for a turbomachine  
[NASA-CASE-LEW-12938-1] c 07 N82-32366
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450
- Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31803
- Oxidizing seal for a turbine tip gas path  
[NASA-CASE-LEW-14053-1] c 07 N84-22563

## CLEAVAGE

- Crystal cleaving machine  
[NASA-CASE-GSC-12584-1] c 37 N82-32730
- Workpiece positioning vise  
[NASA-CASE-GSC-12762-1] c 37 N84-28083

## CLIMBING FLIGHT

- Aircraft instrument Patent  
[NASA-CASE-XLA-00487] c 14 N70-40157

## CLINICAL MEDICINE

- Process for the preparation of brushite crystals  
[NASA-CASE-ERC-10338] c 04 N72-33072
- Measurement of gas production of microorganisms --- using pressure sensors  
[NASA-CASE-LAR-11326-1] c 35 N75-33368
- Production of I-123  
[NASA-CASE-LEW-11390-3] c 25 N76-29379
- Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694
- Medical diagnosis system and method with multispectral imaging --- depth of burns and optical density of the skin  
[NASA-CASE-NPO-14402-1] c 52 N81-27783
- Process of making medical clip  
[NASA-CASE-LAR-12650-2] c 52 N84-28389

## CLIPS

- Medical clip  
[NASA-CASE-LAR-12650-1] c 52 N84-28388
- Process of making medical clip  
[NASA-CASE-LAR-12650-2] c 52 N84-28389

## CLOCKS

- Time synchronization system utilizing moon reflected coded signals Patent  
[NASA-CASE-NPO-10143] c 10 N71-26326
- Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137
- Fault tolerant clock apparatus utilizing a controlled minority of clock elements  
[NASA-CASE-MSC-12531-1] c 35 N75-30504
- Clock setter  
[NASA-CASE-LAR-11458-1] c 35 N76-16392

## CLOSED CIRCUIT TELEVISION

- Spacecraft docking and alignment system --- using television camera system  
[NASA-CASE-MSC-12559-1] c 18 N76-14186

## CLOSED CYCLES

- Closed loop ranging system Patent  
[NASA-CASE-XNP-01501] c 21 N70-41930
- Digital phase-locked loop  
[NASA-CASE-GSC-11623-1] c 33 N75-25040
- Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N76-27664

## CLOSED ECOLOGICAL SYSTEMS

- Recovery of potable water from human wastes in below-G conditions Patent  
[NASA-CASE-XLA-03213] c 05 N71-11207
- Space vehicle with artificial gravity and earth-like environment  
[NASA-CASE-LEW-11101-1] c 31 N73-32750
- Regenerable device for scrubbing breathable air of CO<sub>2</sub> and moisture without special heat exchanger equipment  
[NASA-CASE-MSC-14771-1] c 54 N77-32722
- Cell and method for electrolysis of water and anode  
[NASA-CASE-MSC-16394-1] c 28 N81-24280

## CLOSURES

- Canister closing device Patent  
[NASA-CASE-XLA-01446] c 15 N71-21528
- Spacesuit torso closure  
[NASA-CASE-ARC-11100-1] c 54 N78-31736

## CLOUD CHAMBERS

- Heat transfer device  
[NASA-CASE-MFS-22938-1] c 34 N76-18374

## CLOUD COVER

- Cloud cover sensor  
[NASA-CASE-NPO-14938-1] c 47 N83-32232

## CLOUDS (METEOROLOGY)

- Rocket borne instrument to measure electric fields inside electrified clouds  
[NASA-CASE-KSC-10730-1] c 14 N73-32318
- Electric field measuring and display system --- for cloud formations  
[NASA-CASE-KSC-10731-1] c 33 N74-27862

## CLUTCHES

- Rotary stepping device with memory metal actuator  
[NASA-CASE-NPO-15482-1] c 37 N83-38484
- Directional gear ratio transmissions  
[NASA-CASE-LAR-12644-1] c 37 N84-28084

## CLUTTER

- Clutter free synthetic aperture radar correlator  
[NASA-CASE-NPO-14035-1] c 32 N83-19968

## CMOS

- Complementary DMOS-VMOS integrated circuit structure  
[NASA-CASE-GSC-12190-1] c 33 N79-12321

## COAL

- Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 31 N78-24387
- Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443
- Thickness measurement system  
[NASA-CASE-MFS-23721-1] c 31 N79-28370
- Coal-rock interface detector  
[NASA-CASE-MFS-23725-1] c 43 N79-31706
- Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423
- Coal-shale interface detector  
[NASA-CASE-MFS-23720-1] c 43 N80-23711
- Coal desulfurization --- using iron pentacarbonyl  
[NASA-CASE-NPO-14272-1] c 25 N81-33246
- Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371
- High production shuttle car system for coal mines  
[NASA-CASE-NPO-15949-1] c 37 N83-20155
- Hydrodesulfurization of chlorinated coal  
[NASA-CASE-NPO-15304-1] c 25 N83-31743
- Fluidized bed desulfurization  
[NASA-CASE-NPO-15924-1] c 25 N83-36122
- Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15787-1] c 23 N84-18255
- Supercritical solvent coal extraction  
[NASA-CASE-NPO-15210-1] c 25 N84-22709
- Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768

## COAL GASIFICATION

- Solar heated fluidized bed gasification system  
[NASA-CASE-NPO-15071-1] c 44 N82-18475
- Pressure letdown method and device for coal conversion systems  
[NASA-CASE-NPO-15100-1] c 44 N84-14583
- Micronized coal burner facility  
[NASA-CASE-LEW-13426-1] c 25 N84-18276

## COAL LIQUEFACTION

- Surfactant-assisted liquefaction of particulate carbonaceous substances  
[NASA-CASE-NPO-13904-1] c 25 N79-11152
- Fluidized bed coal liquefaction  
[NASA-CASE-NPO-15891-1] c 25 N83-36120

## COAL UTILIZATION

- Coal desulfurization process  
[NASA-CASE-NPO-13937-1] c 44 N78-31527

- Continuous coal processing method  
[NASA-CASE-NPO-13758-2] c 31 N81-15154
- Fluidized bed coal combustion reactor  
[NASA-CASE-NPO-14273-1] c 25 N82-11144

## COATING

- Method of coating circuit paths on printed circuit boards with solder Patent  
[NASA-CASE-XMF-01599] c 09 N71-20705
- Process for applying black coating to metals Patent  
[NASA-CASE-XLA-06199] c 15 N71-24875
- Method of forming metal hydride films  
[NASA-CASE-LEW-12083-1] c 37 N78-13436
- Selective coating for solar panels --- using black chrome and black nickel  
[NASA-CASE-LEW-12159-1] c 44 N78-19599
- Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge  
[NASA-CASE-ARC-11057-1] c 27 N78-31233
- Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses  
[NASA-CASE-ARC-11039-1] c 74 N78-32854
- Oxidation resistant slurry coating for carbon-based materials  
[NASA-CASE-LEW-13923-1] c 24 N84-16266
- Contactless pellet fabrication  
[NASA-CASE-NPO-15592-1] c 71 N84-16940

## COATINGS

- Bonded solid lubricant coating Patent  
[NASA-CASE-XMS-00259] c 18 N70-38400
- High contrast cathode ray tube  
[NASA-CASE-ERC-10468] c 09 N72-20206
- Durable antistatic coating for polymethylmethacrylate  
[NASA-CASE-NPO-13867-1] c 27 N78-14184
- Edge coating of flat wires  
[NASA-CASE-XMF-05757-1] c 31 N79-21227
- Advanced inorganic separators for alkaline batteries and method of making the same  
[NASA-CASE-LEW-13171-2] c 44 N83-32176
- Diamondlike flake composites  
[NASA-CASE-LEW-13837-1] c 24 N84-22695

## COAXIAL CABLES

- Transmission line thermal short Patent  
[NASA-CASE-XNP-09775] c 09 N71-20445
- Coaxial cable connector Patent  
[NASA-CASE-XNP-04732] c 09 N71-20851
- Transducer circuit and catheter transducer Patent  
[NASA-CASE-ARC-10132-1] c 09 N71-24597
- Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27181
- Vibration isolation system using compression springs  
[NASA-CASE-NPO-11012] c 15 N72-11391
- Hermetically sealed semiconductor  
[NASA-CASE-GSC-10781-1] c 15 N73-14469
- System for stabilizing cable phase delay utilizing a coaxial cable under pressure  
[NASA-CASE-NPO-13138-1] c 33 N74-17927
- Refrigerated coaxial coupling --- for microwave equipment  
[NASA-CASE-NPO-13504-1] c 33 N75-30430
- High power RF coaxial switch  
[NASA-CASE-NPO-14229-1] c 33 N80-18285

## COAXIAL PLASMA ACCELERATORS

- Self-energized plasma compressor  
[NASA-CASE-MFS-22145-2] c 75 N76-17951

## COBALT

- Process for improving mechanical properties of epoxy resins by addition of cobalt ions  
[NASA-CASE-LAR-13230-1] c 24 N84-34571

## COBALT ALLOYS

- High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-00726] c 17 N71-15644
- High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-02991] c 17 N71-18025
- High temperature ferromagnetic cobalt-base alloy Patent  
[NASA-CASE-XLE-03829] c 17 N71-23248
- Cobalt-base alloy  
[NASA-CASE-LEW-10436-1] c 17 N73-32415

## COBALT OXIDES

- High contrast cathode ray tube  
[NASA-CASE-ERC-10468] c 09 N72-20206

## COCKPIT SIMULATORS

- Controlled visibility device for an aircraft Patent  
[NASA-CASE-XFR-04147] c 11 N71-10748

## COCKPITS

- Aircraft canopy lock  
[NASA-CASE-FRC-11065-1] c 05 N83-19737

## CODERS

- Encoder/decoder system for a rapidly synchronizable binary code Patent  
[NASA-CASE-NPO-10342] c 10 N71-33407
- Modular encoder  
[NASA-CASE-NPO-10629] c 08 N72-18184



- Method and apparatus for decoding compatible convolutional codes  
[NASA-CASE-MSC-14070-1] c 32 N74-32598
- Digital plus analog output encoder  
[NASA-CASE-GSC-12115-1] c 62 N76-31946
- Twin-capacitive shaft angle encoder with analog output signal  
[NASA-CASE-ARC-10897-1] c 33 N77-31404
- CODING**
- Error correcting method and apparatus Patent  
[NASA-CASE-XNP-02748] c 08 N71-22749
- Rate data encoder  
[NASA-CASE-LAR-10128-1] c 08 N73-20217
- Binary concatenated coding system  
[NASA-CASE-MSC-14082-1] c 60 N76-23850
- Differential pulse code modulation  
[NASA-CASE-MSC-12506-1] c 32 N77-12239
- COEFFICIENT OF FRICTION**
- Static coefficient test method and apparatus  
[NASA-CASE-GSC-11893-1] c 35 N76-31489
- Locking redundant link  
[NASA-CASE-LAR-11900-1] c 37 N79-14382
- COENZYMES**
- Flavin coenzyme assay  
[NASA-CASE-GSC-10565-1] c 06 N72-25149
- COHERENT ELECTROMAGNETIC RADIATION**
- Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550
- Focused image holography with extended sources Patent  
[NASA-CASE-ERC-10019] c 16 N71-15551
- Off-axis coherently pumped laser  
[NASA-CASE-GSC-12592-1] c 36 N84-28065
- COHERENT LIGHT**
- Hybrid holographic system using reflected and transmitted object beams simultaneously Patent  
[NASA-CASE-MFS-20074] c 16 N71-15565
- Amplitude modulated laser transmitter Patent  
[NASA-CASE-XMS-04289] c 16 N71-22895
- Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent  
[NASA-CASE-XER-11203] c 14 N71-28994
- COHERENT RADIATION**
- Laser communication system for controlling several functions at a location remote to the laser  
[NASA-CASE-LAR-10311-1] c 16 N73-16536
- Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver  
[NASA-CASE-NPO-11919-1] c 35 N74-11284
- Apparatus for scanning the surface of a cylindrical body  
[NASA-CASE-NPO-11861-1] c 36 N74-20009
- Optically detonated explosive device  
[NASA-CASE-NPO-11743-1] c 28 N74-27425
- Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback  
[NASA-CASE-NPO-13346-1] c 36 N76-29575
- Coherently pulsed laser source  
[NASA-CASE-NPO-15111-1] c 36 N82-29589
- COINCIDENCE CIRCUITS**
- Frequency measurement by coincidence detection with standard frequency  
[NASA-CASE-MSC-14649-1] c 33 N76-16331
- COLD CATHODES**
- Meteoroid detector  
[NASA-CASE-LAR-10483-1] c 14 N73-32327
- COLD GAS**
- Annular arc accelerator shock tube  
[NASA-CASE-NPO-13528-1] c 09 N77-10071
- COLD WELDING**
- Method of cold welding using ion beam technology  
[NASA-CASE-LEW-12982-1] c 37 N81-19455
- COLD WORKING**
- Hydroforming techniques using epoxy molds Patent  
[NASA-CASE-XLE-05641-1] c 15 N71-26346
- COLLAPSE**
- Collapsible pistons  
[NASA-CASE-MSC-13789-1] c 11 N73-32152
- COLLECTION**
- Automatic liquid inventory collecting and dispensing unit  
[NASA-CASE-LAR-11071-1] c 35 N75-19611
- Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N78-27750
- Absorbent product to absorb fluids --- for collection of human wastes  
[NASA-CASE-MSC-18223-1] c 24 N82-29382
- COLLIMATION**
- Long range laser traversing system  
[NASA-CASE-GSC-11262-1] c 36 N74-21091
- Optical alignment device  
[NASA-CASE-ARC-10932-1] c 74 N76-22993
- Spatial filter for Q-switched lasers  
[NASA-CASE-LEW-12184-1] c 36 N77-32478
- Dual acting slit control mechanism  
[NASA-CASE-LAR-11370-1] c 35 N80-28686
- Method for shaping and aiming narrow beams --- sonar mapping and target identification  
[NASA-CASE-NPO-14632-1] c 32 N82-18443
- Beam forming network  
[NASA-CASE-NPO-15743-1] c 32 N83-19969
- Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680
- Ion beam accelerator system  
[NASA-CASE-NPO-15547-1] c 72 N84-16959
- Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568
- COLLIMATORS**
- X-ray reflection collimator adapted to focus X-radiation directly on a detector Patent  
[NASA-CASE-XHQ-04106] c 14 N70-40240
- Collimator of multiple plates with axially aligned identical random arrays of apertures  
[NASA-CASE-MFS-20546-2] c 14 N73-30389
- Multiplate focusing collimator --- for scanning small near radiation sources  
[NASA-CASE-MFS-20932-1] c 35 N75-19616
- Method for shaping and aiming narrow beams --- sonar mapping and target identification  
[NASA-CASE-NPO-14632-1] c 32 N82-18443
- Constant magnification optical tracking system  
[NASA-CASE-NPO-14813-1] c 74 N82-24072
- Multiprism collimator  
[NASA-CASE-GSC-12608-1] c 74 N83-10900
- COLLISION AVOIDANCE**
- Cooperative Doppler radar system Patent  
[NASA-CASE-LAR-10403] c 21 N71-11766
- Satellite aided vehicle avoidance system Patent  
[NASA-CASE-ERC-10090] c 21 N71-24948
- Stacked array of omnidirectional antennas  
[NASA-CASE-LAR-10545-1] c 09 N72-21244
- Display research collision warning system  
[NASA-CASE-HQN-10703] c 21 N73-13643
- Apparatus for aiding a pilot in avoiding a midair collision between aircraft  
[NASA-CASE-LAR-10717-1] c 21 N73-30641
- Satellite aided vehicle avoidance system  
[NASA-CASE-ERC-10419-1] c 03 N75-30132
- COLLOIDAL GENERATORS**
- Colloid propulsion method and apparatus Patent  
[NASA-CASE-XLE-00817] c 28 N70-33265
- COLLOIDAL PROPELLANTS**
- Colloid propulsion method and apparatus Patent  
[NASA-CASE-XLE-00817] c 28 N70-33265
- Low viscosity magnetic fluid obtained by the colloidal suspension of magnetic particles Patent  
[NASA-CASE-XLE-01512] c 12 N70-40124
- Annular slit colloid thruster Patent  
[NASA-CASE-GSC-10709-1] c 28 N71-25213
- COLLOIDS**
- The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols  
[NASA-CASE-GSC-12088-1] c 74 N78-13874
- COLOR**
- Nondestructive spot test method for magnesium and magnesium alloys  
[NASA-CASE-LAR-10953-1] c 17 N73-27448
- Spectrally balanced chromatic landing approach lighting system  
[NASA-CASE-ARC-10990-1] c 04 N82-16059
- COLOR PHOTOGRAPHY**
- Method of recording a gas flow pattern Patent  
[NASA-CASE-XMF-01779] c 12 N71-20815
- Method for retarding dye fading during archival storage of developed color photographic film --- inert atmosphere  
[NASA-CASE-MFS-23250-1] c 35 N82-11432
- COLOR TELEVISION**
- Color television systems using a single gun color cathode ray tube Patent  
[NASA-CASE-ERC-10098] c 09 N71-28618
- Color television system  
[NASA-CASE-MSC-12146-1] c 07 N72-17109
- Scan converting video tape recorder  
[NASA-CASE-NPO-10166-1] c 07 N73-22076
- Scan converting video tape recorder  
[NASA-CASE-NPO-10166-2] c 35 N76-16391
- System for producing chroma signals  
[NASA-CASE-MSC-14683-1] c 74 N77-18893
- Full color hybrid display for aircraft simulators --- landing aids  
[NASA-CASE-ARC-10903-1] c 09 N78-18083
- COLOR VISION**
- Color perception tester  
[NASA-CASE-KSC-10278] c 05 N72-16015
- COLUMNS**
- Lightweight structural columns --- space erectable trusses  
[NASA-CASE-LAR-12095-1] c 31 N81-25258
- COLUMNS (PROCESS ENGINEERING)**
- Micropacked column for a chromatographic system  
[NASA-CASE-XNP-04816] c 06 N69-39936
- COLUMNS (SUPPORTS)**
- Telescoping columns --- parabolic antenna support  
[NASA-CASE-LAR-12195-1] c 31 N81-27324
- Self-locking mechanical center joint --- for space construction  
[NASA-CASE-LAR-12884-1] c 37 N82-29606
- Latching mechanism for deployable-restorable columns  
[NASA-CASE-LAR-13169-1] c 37 N84-25063
- COMBINATORIAL ANALYSIS**
- Apparatus for computing square roots Patent  
[NASA-CASE-XGS-04768] c 08 N71-19437
- COMBUSTION**
- Combustion detector  
[NASA-CASE-LAR-10739-1] c 14 N73-16484
- A system for controlling the oxygen content of a gas produced by combustion  
[NASA-CASE-LAR-13257-1] c 25 N84-32447
- COMBUSTION CHAMBERS**
- Rocket chamber leak test fixture  
[NASA-CASE-XFR-09479] c 14 N69-27503
- Rocket propellant injector Patent  
[NASA-CASE-XLE-00103] c 28 N70-33241
- Formed metal ribbon wrap Patent  
[NASA-CASE-XLE-00164] c 15 N70-36411
- Injector-valve device Patent  
[NASA-CASE-XLE-00303] c 15 N70-36535
- Ignition system for monopropellant combustion devices Patent  
[NASA-CASE-XNP-00249] c 28 N70-38249
- Method of making a regeneratively cooled combustion chamber Patent  
[NASA-CASE-XLE-00150] c 28 N70-41818
- Control of transverse instability in rocket combustors Patent  
[NASA-CASE-XLE-04603] c 33 N71-21507
- Combustion chamber Patent  
[NASA-CASE-XLE-04857] c 28 N71-23968
- Rocket engine injector Patent  
[NASA-CASE-XLE-03157] c 28 N71-24736
- Coaxial injector for reaction motors  
[NASA-CASE-NPO-11095] c 15 N72-25455
- Swirl can primary combustor  
[NASA-CASE-LEW-11326-1] c 23 N73-30665
- Method of electroforming a rocket chamber  
[NASA-CASE-LEW-11118-1] c 20 N74-32919
- Controlled separation combustor --- airflow distribution in gas turbine engines  
[NASA-CASE-LEW-11593-1] c 20 N76-14190
- Fuel combustor  
[NASA-CASE-LEW-12137-1] c 25 N78-10224
- Direct heating surface combustor  
[NASA-CASE-LEW-11877-1] c 34 N78-27357
- Combustor --- low nitrogen oxide formation  
[NASA-CASE-NPO-13958-1] c 25 N79-11151
- Heat exchanger --- rocket combustion chambers and cooling systems  
[NASA-CASE-LEW-12252-1] c 34 N79-13288
- General purpose rocket furnace  
[NASA-CASE-MFS-23460-1] c 12 N79-26075
- Reduction of nitric oxide emissions from a combustor  
[NASA-CASE-ARC-10814-2] c 07 N80-26298
- Fluidized bed coal combustion reactor  
[NASA-CASE-NPO-14273-1] c 25 N82-11144
- Steam cooled rich-burn combustor liner  
[NASA-CASE-LEW-13609-1] c 25 N83-17628
- Micronized coal burner facility  
[NASA-CASE-LEW-13426-1] c 25 N84-16276
- Heat pipes to reduce engine exhaust emissions  
[NASA-CASE-LEW-12590-1] c 37 N84-22958
- Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577
- A system for controlling the oxygen content of a gas produced by combustion  
[NASA-CASE-LAR-13257-1] c 25 N84-32447
- Diesel engine catalytic combustor system --- aircraft engines  
[NASA-CASE-LEW-12995-1] c 37 N84-33808
- COMBUSTION CONTROL**
- Burning rate control of solid propellants Patent  
[NASA-CASE-XLE-03494] c 27 N71-21819
- COMBUSTION EFFICIENCY**
- Rocket engine injector Patent  
[NASA-CASE-XLE-00111] c 28 N70-38199
- Heat pipes to reduce engine exhaust emissions  
[NASA-CASE-LEW-12590-1] c 37 N84-22958
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- Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784
- Plasma igniter for internal combustion engine  
[NASA-CASE-NPO-13828-1] c 37 N79-11405



## COMBUSTION PRODUCTS

- Separation nut Patent  
[NASA-CASE-XGS-01971] c 15 N71-15922  
Combustion products generating and metering device  
[NASA-CASE-GSC-11095-1] c 14 N72-10375  
System for minimizing internal combustion engine  
pollution emission  
[NASA-CASE-NPO-13402-1] c 37 N76-18457  
Coal desulfurization process  
[NASA-CASE-NPO-13937-1] c 44 N78-31527  
Combustor --- low nitrogen oxide formation  
[NASA-CASE-NPO-13958-1] c 25 N79-11151  
A system for controlling the oxygen content of a gas  
produced by combustion  
[NASA-CASE-LAR-13257-1] c 25 N84-32447

## COMBUSTION STABILITY

- Control of transverse instability in rocket combustors  
Patent  
[NASA-CASE-XLE-04603] c 33 N71-21507

## COMET TAILS

- Ion mass spectrometer  
[NASA-CASE-NPO-15423-1] c 35 N84-28016

## COMFORT

- Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445

## COMMAND AND CONTROL

- Multiple rate digital command detection system with  
range clean-up capability  
[NASA-CASE-NPO-13753-1] c 32 N77-20289  
Common data buffer system --- communication with  
computational equipment utilized in spacecraft  
operations  
[NASA-CASE-KSC-11048-1] c 62 N81-24779

## COMMAND MODULES

- Low onset rate energy absorber  
[NASA-CASE-MSC-12279] c 15 N72-17450

## COMMUNICATING

- Communications link for computers  
[NASA-CASE-NPO-11161] c 08 N72-25207

## COMMUNICATION

- Correlation function apparatus Patent  
[NASA-CASE-XNP-00746] c 07 N71-21476  
System for improving signal-to-noise ratio of a  
communication signal  
[NASA-CASE-MSC-12259-2] c 07 N72-33146

## COMMUNICATION CABLES

- Method of making a molded connector Patent  
[NASA-CASE-XMF-03498] c 15 N71-15986  
Process for making RF shielded cable connector  
assemblies and the products formed thereby  
[NASA-CASE-GSC-11215-1] c 09 N73-28083  
Fiber distributed feedback laser  
[NASA-CASE-NPO-13531-1] c 36 N76-24553  
High-speed data link for moderate distances and noisy  
environments  
[NASA-CASE-NPO-14152-1] c 32 N80-18252  
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[NASA-CASE-ARC-11256-1] c 15 N82-24272  
Rotatable electric cable connecting system  
[NASA-CASE-GSC-12899-1] c 33 N84-29085

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- Elimination of frequency shift in a multiplex  
communication system Patent  
[NASA-CASE-XNP-01306] c 07 N71-20814  
Decoder system Patent  
[NASA-CASE-NPO-10118] c 07 N71-24741  
Data-aided carrier tracking loops  
[NASA-CASE-NPO-11282] c 10 N73-16205  
Doppler compensation by shifting transmitted object  
frequency within limits  
[NASA-CASE-GSC-10087-4] c 07 N73-20174  
Differential phase shift keyed communication system  
[NASA-CASE-MSC-14065-1] c 32 N74-26654

## COMMUNICATION NETWORKS

- Multicomputer communication system  
[NASA-CASE-NPO-15433-1] c 62 N83-20634

## COMMUNICATION SATELLITES

- Passive communication satellite Patent  
[NASA-CASE-XLA-00210] c 30 N70-40309  
Apparatus providing a directive field pattern and attitude  
sensing of a spin stabilized satellite Patent  
[NASA-CASE-XGS-02607] c 31 N71-23009  
Deep space monitor communication satellite system  
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[NASA-CASE-XAC-06029-1] c 31 N71-24813  
Satellite communication system Patent  
[NASA-CASE-XNP-02389] c 07 N71-28900  
Satellite aided vehicle avoidance system  
[NASA-CASE-ERC-10419-1] c 03 N75-30132  
Ultra stable frequency distribution system  
[NASA-CASE-NPO-13836-1] c 32 N78-15323  
Beam forming network  
[NASA-CASE-NPO-15743-1] c 32 N83-19969

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- High speed low level electrical stepping switch Patent  
[NASA-CASE-XAC-00060] c 09 N70-39915

- Elimination of current spikes in buck power converters  
[NASA-CASE-NPO-14505-1] c 33 N81-19393

## COMMUTATORS

- Scanning aspect sensor employing an apertured disc  
and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432  
Current steering commutator  
[NASA-CASE-NPO-10743] c 08 N72-21199

## COMPARATOR CIRCUITS

- Digital frequency discriminator Patent  
[NASA-CASE-MFS-14322] c 08 N71-18692  
Pulsed differential comparator circuit Patent  
[NASA-CASE-XLE-03804] c 10 N71-19471  
Multi-cell battery protection system  
[NASA-CASE-LEW-12039-1] c 44 N78-14625  
Window comparator  
[NASA-CASE-FRC-10090-1] c 33 N78-18308

## COMPARATORS

- Fluid flow meter with comparator reference means  
Patent  
[NASA-CASE-XGS-01331] c 14 N71-22996  
Comparator for the comparison of two binary numbers  
Patent  
[NASA-CASE-XNP-04819] c 08 N71-23295  
High stability buffered phase comparator  
[NASA-CASE-GSC-12645-1] c 33 N84-16454

## COMPENSATORS

- Star image motion compensator  
[NASA-CASE-LAR-10523-1] c 14 N72-22444  
Thermal compensator for closed-cycle helium  
refrigerator --- assuring constant temperature for an  
infrared laser diode  
[NASA-CASE-GSC-12168-1] c 31 N79-17029  
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unbalance  
[NASA-CASE-GSC-12550-1] c 37 N84-28082

## COMPLEX COMPOUNDS

- Synthesis of polyformals  
[NASA-CASE-ARC-11244-1] c 23 N82-16174

## COMPOSITE MATERIALS

- Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288  
Method of making fiber reinforced metallic composites  
Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-00228] c 17 N70-38490  
Unfired-ceramic flame-resistant insulation and method  
of making the same Patent  
[NASA-CASE-XMF-01030] c 18 N70-41583  
Process of casting heavy slips Patent  
[NASA-CASE-XLE-00106] c 15 N71-16076  
Lightweight refractory insulation and method of  
preparing the same Patent  
[NASA-CASE-XMF-05279] c 18 N71-16124  
Flexible composite membrane Patent  
[NASA-CASE-XNP-08837] c 18 N71-16210  
Low temperature flexure fatigue cryostat Patent  
[NASA-CASE-XMF-02964] c 14 N71-17659  
Method for producing fiber reinforced metallic  
composites Patent  
[NASA-CASE-XLE-03925] c 18 N71-22894  
Solar cell matrix  
[NASA-CASE-NPO-11190] c 03 N71-34044  
Method of forming shapes from planar sheets of  
thermosetting materials  
[NASA-CASE-NPO-11036] c 15 N72-24522  
Method of making fiber composites  
[NASA-CASE-LEW-10424-2-2] c 18 N72-25539  
Thermal compensating structural member  
[NASA-CASE-MFS-20433] c 15 N72-28496  
Bearing material --- composite material with low friction  
surface for rolling or sliding contact  
[NASA-CASE-LEW-11930-1] c 24 N76-22309  
Fluid seal for rotating shafts  
[NASA-CASE-LEW-11676-1] c 37 N76-22541  
Non-flammable elastomeric fiber from a fluorinated  
elastomer and containing an halogenated flame  
retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405  
Method of growing composites of the type exhibiting  
the Soret effect --- improved structure of eutectic alloy  
crystals  
[NASA-CASE-MFS-22926-1] c 24 N77-27187  
Hybrid composite laminate structures  
[NASA-CASE-LEW-12118-1] c 24 N77-27188  
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[NASA-CASE-ARC-10913-1] c 24 N78-15180  
High temperature resistant cermet and ceramic  
compositions --- for thermal resistant insulators and  
refractory coatings  
[NASA-CASE-NPO-13690-1] c 27 N78-19302  
Molded composite pyrogen igniter for rocket motors ---  
solid propellant ignition  
[NASA-CASE-LAR-12018-1] c 20 N78-24275

- Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-1] c 28 N78-24365  
Method of making bearing materials --- self-lubricating,  
oxidation resistant composites for high temperature  
applications  
[NASA-CASE-LEW-11930-4] c 24 N79-17916  
Composite seal for turbomachinery --- backings for  
turbine engine shrouds  
[NASA-CASE-LEW-12131-1] c 37 N79-18318  
Crystalline polyimides --- reinforcing fibers for high  
temperature composites and adhesives as well as flame  
retardation  
[NASA-CASE-LAR-12099-1] c 27 N80-16158  
Cork-resin ablative insulation for complex surfaces and  
method for applying the same  
[NASA-CASE-MFS-23626-1] c 24 N80-26388  
Method of making bearing material  
[NASA-CASE-LEW-11930-3] c 24 N80-33482  
Tackifier for addition polyimides containing  
monoethylphthalate  
[NASA-CASE-LAR-12642-1] c 27 N81-29229  
Elastomer coated filler and composites thereof  
comprising at least 60% by weight of a hydrated filler and  
an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900  
Piezoelectric composite materials  
[NASA-CASE-LEW-12582-1] c 76 N83-34796  
Pre-stressed thermal protection systems  
[NASA-CASE-MSC-20254-1] c 16 N84-22601  
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[NASA-CASE-LEW-13937-1] c 24 N84-22695

## COMPOSITE PROPELLANTS

- Ammonium perchlorate composite propellant containing  
an organic transitional metal chelate catalytic additive  
Patent  
[NASA-CASE-LAR-10173-1] c 27 N71-14090  
Silicone containing solid propellant  
[NASA-CASE-NPO-14477-1] c 28 N80-28536  
Recovery of aluminum from composite propellants  
[NASA-CASE-NPO-14110-1] c 28 N81-15119

## COMPOSITE STRUCTURES

- Inflatable honeycomb Patent  
[NASA-CASE-XLA-00204] c 32 N70-36536  
Composite powerplant and shroud therefor Patent  
[NASA-CASE-XLA-01043] c 28 N71-10780  
Bonding method in the manufacture of continuous  
regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260  
Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-19170  
Composite sandwich lattice structure  
[NASA-CASE-LAR-11898-1] c 24 N78-10214  
Method of making a composite sandwich lattice  
structure  
[NASA-CASE-LAR-11898-2] c 24 N78-17149  
Low density bismaleimide-carbon microballoon  
composites --- aircraft and submarine compartment  
safety  
[NASA-CASE-ARC-11040-2] c 24 N78-27184  
Aluminum or copper substrate panel for selective  
absorption of solar energy  
[NASA-CASE-MFS-23518-3] c 44 N80-16452  
Lightweight structural columns --- space erectable  
trusses  
[NASA-CASE-LAR-12095-1] c 31 N81-25258  
Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859

## COMPOSITION (PROPERTY)

- Moving particle composition analyzer  
[NASA-CASE-GSC-11889-1] c 35 N76-16393

## COMPRESSED AIR

- Valve actuator Patent  
[NASA-CASE-XHQ-01208] c 15 N70-35409

## COMPRESSIBILITY

- Nozzle extraction process and handlemeter for  
measuring handle  
[NASA-CASE-LAR-12147-1] c 31 N79-11246

## COMPRESSIBLE FLUIDS

- Apparatus having coaxial capacitor structure for  
measuring fluid density Patent  
[NASA-CASE-XLE-00143] c 14 N70-36618  
Apparatus for tensile testing Patent  
[NASA-CASE-XKS-06250] c 14 N71-15600

## COMPRESSING

- Refrigeration apparatus Patent  
[NASA-CASE-XNP-08877] c 15 N71-23025  
Method for compression molding of thermosetting  
plastics utilizing a temperature gradient across the plastic  
to cure the article  
[NASA-CASE-LAR-10489-1] c 31 N74-18124

## COMPRESSION LOADS

- Pressure transducer  
[NASA-CASE-NPO-10832] c 14 N72-21405  
Solid medium thermal engine  
[NASA-CASE-ARC-10461-1] c 44 N74-33379

# SUBJECT INDEX

Locking redundant link  
[NASA-CASE-LAR-11900-1] c 37 N79-14382

Fixture for environmental exposure of structural materials under compression load  
[NASA-CASE-LAR-12602-1] c 39 N83-32081

**COMPRESSION RATIO**  
Automatic compression adjusting mechanism for internal combustion engines  
[NASA-CASE-MSC-18807-1] c 37 N83-36483

**COMPRESSION TESTS**  
Compression test assembly  
[NASA-CASE-LAR-10440-1] c 14 N73-32323

Anti-buckling fatigue test assembly --- for subjecting metal specimen to tensile and compressive loads at constant temperature  
[NASA-CASE-LAR-10426-1] c 09 N74-19528

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[NASA-CASE-MSC-18723-1] c 35 N83-21312

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Welding blades to rotors  
[NASA-CASE-LEW-10533-1] c 15 N73-28515

Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31603

**COMPRESSOR ROTORS**  
Active clearance control system for a turbomachine  
[NASA-CASE-LEW-12938-1] c 07 N82-32366

**COMPRESSORS**  
Thermal pump-compressor for space use Patent  
[NASA-CASE-XLA-00377] c 33 N71-17610

Self-energized plasma compressor  
[NASA-CASE-MFS-22145-2] c 75 N76-17951

Gas compression apparatus  
[NASA-CASE-MSC-14757-1] c 35 N78-10428

Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-2] c 37 N80-26658

Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153

Cycling Joule Thomson refrigerator  
[NASA-CASE-NPO-15251-1] c 31 N83-31897

**COMPUTATION**  
Apparatus for computing square roots Patent  
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Ruler for making navigational computations  
[NASA-CASE-XNP-01458] c 04 N78-17031

**COMPUTER COMPONENTS**  
Counter and shift register Patent  
[NASA-CASE-XNP-01753] c 08 N71-22897

Binary to binary coded decimal converter  
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Computer circuit card puller  
[NASA-CASE-FRC-11042-1] c 60 N82-24839

Control means for a solid state crossbar switch  
[NASA-CASE-NPO-15066-1] c 33 N82-29538

**COMPUTER DESIGN**  
Two-dimensional radiant energy array computers and computing devices  
[NASA-CASE-GSC-11839-1] c 60 N77-14751

Massively parallel processor computer  
[NASA-CASE-GSC-12223-1] c 60 N83-25378

Distributed multipoint memory architecture  
[NASA-CASE-NPO-15342-1] c 60 N83-32342

**COMPUTER GRAPHICS**  
System for quantizing graphic displays  
[NASA-CASE-NPO-10745] c 08 N72-22164

**COMPUTER NETWORKS**  
High-speed data link for moderate distances and noisy environments  
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Common data buffer system --- communication with computational equipment utilized in spacecraft operations  
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Multicomputer communication system  
[NASA-CASE-NPO-15433-1] c 62 N83-20834

**COMPUTER PROGRAMMING**  
Minimal logic block encoder Patent  
[NASA-CASE-NPO-10595] c 10 N71-25917

Priority interrupt system --- comprised of four registers  
[NASA-CASE-NPO-13067-1] c 60 N76-18800

**COMPUTER PROGRAMS**  
Self-testing and repairing computer Patent  
[NASA-CASE-NPO-10567] c 08 N71-24633

Program for computer aided reliability estimation  
[NASA-CASE-NPO-13086-1] c 15 N73-12495

Numerical computer peripheral interactive device with manual controls  
[NASA-CASE-NPO-11497] c 08 N73-25206

**COMPUTER STORAGE DEVICES**  
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[NASA-CASE-XMF-05835] c 08 N71-12504

Binary sequence detector Patent  
[NASA-CASE-XNP-05415] c 08 N71-12505

Pulse-type magnetic core memory element circuit with blocking oscillator feedback Patent  
[NASA-CASE-XGS-03303] c 08 N71-18595

Drive circuit utilizing two cores Patent  
[NASA-CASE-XNP-01318] c 10 N71-23033

Programmable telemetry system Patent  
[NASA-CASE-GSC-10131-1] c 07 N71-24624

Serial digital decoder Patent  
[NASA-CASE-NPO-10150] c 08 N71-24650

Digital memory in which the driving of each word location is controlled by a switch core Patent  
[NASA-CASE-XNP-01466] c 10 N71-26434

Redundant memory organization Patent  
[NASA-CASE-GSC-10564] c 10 N71-29135

Semiconductor-ferroelectric memory device  
[NASA-CASE-ERC-10307] c 08 N72-21198

Shared memory for a fault-tolerant computer  
[NASA-CASE-NPO-13139-1] c 60 N76-21914

Automatic multi-banking of memory for microprocessors  
[NASA-CASE-NPO-15295-1] c 60 N82-11785

Method of and apparatus for generating an interstitial point in a data stream having an even number of data points  
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Distributed multipoint memory architecture  
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**COMPUTER SYSTEMS DESIGN**  
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Computer interface system  
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**COMPUTER TECHNIQUES**  
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[NASA-CASE-NPO-13063-1] c 25 N76-18245

Apparatus for determining thermophysical properties of test specimens  
[NASA-CASE-LAR-11883-1] c 09 N77-27131

Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421

Automatic flowmeter calibration system  
[NASA-CASE-KSC-11076-1] c 34 N81-26402

Auto covariance computer  
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**COMPUTERIZED SIMULATION**  
Integrated time shared instrumentation display Patent  
[NASA-CASE-XLA-01952] c 08 N71-12507

Microcomputerized electric field meter diagnostic and calibration system  
[NASA-CASE-KSC-11035-1] c 35 N78-28411

Simulator method and apparatus for practicing the mating of an observer-controlled object with a target  
[NASA-CASE-MFS-23052-2] c 74 N79-13855

Inflight IFR procedures simulator  
[NASA-CASE-KSC-11218-1] c 09 N82-29331

**COMPUTERS**  
Telemetry word forming unit  
[NASA-CASE-XNP-09225] c 09 N69-24333

Data compression processor Patent  
[NASA-CASE-NPO-10068] c 08 N71-19288

Communications link for computers  
[NASA-CASE-NPO-11161] c 08 N72-25207

Auto covariance computer  
[NASA-CASE-LAR-12968-1] c 35 N83-34273

Digital interface for bi-directional communication between a computer and a peripheral device  
[NASA-CASE-MSC-20258-1] c 60 N84-28492

**CONCAVITY**  
Concave grating spectrometer Patent  
[NASA-CASE-XGS-01036] c 14 N70-40003

**CONCENTRATION (COMPOSITION)**  
Tower evaporator  
[NASA-CASE-NPO-15609-1] c 25 N83-36119

**CONCENTRATORS**  
Device for directionally controlling electromagnetic radiation Patent  
[NASA-CASE-XLE-01716] c 09 N70-40234

Thermostatically controlled non-tracking type solar energy concentrator  
[NASA-CASE-NPO-13497-1] c 44 N76-14602

Three-dimensional tracking solar energy concentrator and method for making same  
[NASA-CASE-NPO-13736-1] c 44 N77-32583

Non-tracking solar energy collector system  
[NASA-CASE-NPO-13817-1] c 44 N79-11471

Solar cell module  
[NASA-CASE-NPO-14487-1] c 44 N79-31753

Solar concentrator  
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[NASA-CASE-LAR-13053-1] c 43 N83-29783

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Method and apparatus for producing gas-filled hollow spheres --- target pellets for inertial confinement fusion  
[NASA-CASE-NPO-14596-3] c 31 N83-31896

**CONDENSATES**  
Apparatus for testing polymeric materials Patent  
[NASA-CASE-XNP-09699] c 06 N71-24607

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**CONDENSING**  
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[NASA-CASE-ARC-11060-1] c 27 N79-22300

**CONDUCTING FLUIDS**  
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[NASA-CASE-NPO-10755] c 15 N71-27084

Internally supported flexible duct joint --- device for conducting fluids in high pressure systems  
[NASA-CASE-MFS-19193-1] c 37 N75-19686

**CONDUCTIVE HEAT TRANSFER**  
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[NASA-CASE-XLE-00266] c 14 N70-34156

Space suit heat exchanger Patent  
[NASA-CASE-XMS-09571] c 05 N71-19439

Compact pulsed laser having improved heat conductance  
[NASA-CASE-NPO-13147-1] c 36 N77-25502

Automatic thermal switch  
[NASA-CASE-GSC-12415-1] c 33 N82-24419

**CONDUCTORS**  
Extensible cable support Patent  
[NASA-CASE-XMF-07587] c 15 N71-18701

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[NASA-CASE-LAR-10994-1] c 24 N75-13032

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Conically shaped cavity radiometer with a dual purpose cone winding Patent  
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**CONFINEMENT**  
Observation window for a gas confining chamber  
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**CONICAL BODIES**  
Conical valve plug Patent  
[NASA-CASE-XLE-00715] c 15 N70-34859

Conical reflector antenna  
[NASA-CASE-NPO-10303] c 07 N72-22127

Multiple reflection conical microwave antenna  
[NASA-CASE-NPO-11661] c 07 N73-14130

**CONICAL SCANNING**  
Conical scan tracking system employing a large antenna  
[NASA-CASE-NPO-14009-1] c 32 N79-13214

**CONICAL SHELLS**  
Device for determining the accuracy of the flare on a flared tube  
[NASA-CASE-XKS-03495] c 14 N69-39785

Foldable solar concentrator Patent  
[NASA-CASE-XLA-04622] c 03 N70-41580

Apparatus for machining geometric cones Patent  
[NASA-CASE-XMS-04292] c 15 N71-22722

**CONJUGATES**  
Phase conjugation method and apparatus for an active retrodirective antenna array  
[NASA-CASE-NPO-13641-1] c 32 N79-24210

**CONNECTORS**  
Connector strips-positive, negative and T tabs  
[NASA-CASE-XGS-01395] c 03 N69-21539

Quick release connector Patent  
[NASA-CASE-XLA-01141] c 15 N71-13789

Flared tube strainer  
[NASA-CASE-XLA-05056] c 15 N72-11389

Process for making RF shielded cable connector assemblies and the products formed thereby  
[NASA-CASE-GSC-11215-1] c 09 N73-28083

Low heat leak connector for cryogenic system  
[NASA-CASE-XLE-02367-1] c 31 N79-21225

Variable length strut with longitudinal compliance and locking capability --- constructing truss and beam structures in space and interconnecting an orbit transfer vehicle and a payload  
[NASA-CASE-MFS-25907-1] c 37 N83-31019

Clamp-mount device  
[NASA-CASE-MFS-25510-1] c 37 N84-16560

Apparatus for releasably connecting first and second objects in predetermined space relationship  
[NASA-CASE-MSC-18969-1] c 18 N84-22605

**CONSCIOUSNESS**  
EEG sleep analyzer and method of operation Patent  
[NASA-CASE-MSC-13282-1] c 05 N71-24729

CONSISTENCY

Constant-output atomizer --- Inhalation therapy and aerosol research  
[NASA-CASE-MFS-25631-1] c 34 N84-12406

CONSOLES

Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310

CONSTANTS

Spring operated accelerator and constant force spring mechanism therefor  
[NASA-CASE-ARC-10898-1] c 35 N77-18417

CONSTRAINTS

Passive caging mechanism Patent  
[NASA-CASE-GSC-10306-1] c 15 N71-24694  
Cable restraint  
[NASA-CASE-LAR-10129-1] c 15 N73-25512  
Restraint system for ergometer  
[NASA-CASE-MFS-21046-1] c 14 N73-27377  
Reefing system  
[NASA-CASE-LAR-10129-2] c 37 N74-20063  
Restraining mechanism  
[NASA-CASE-MSC-13054] c 54 N78-17677  
Spine immobilization apparatus  
[NASA-CASE-ARC-11167-1] c 52 N81-25662

CONSTRUCTION MATERIALS

Foldable construction block  
[NASA-CASE-MSC-12233-1] c 15 N72-25454  
Foldable construction block  
[NASA-CASE-MSC-12233-2] c 32 N73-13921

CONTACT POTENTIALS

Ionospheric battery Patent  
[NASA-CASE-XGS-01593] c 03 N70-35408

CONTAINERLESS MELTS

Method of crystallization --- in gravity-free environments  
[NASA-CASE-MFS-23001-1] c 76 N77-32919  
Production of ultrapure amorphous metals utilizing acoustic cooling  
[NASA-CASE-NPO-15658-1] c 26 N83-19890  
Gas levitator having fixed levitation node for containerless processing  
[NASA-CASE-MFS-25509-1] c 35 N83-24828  
Method and apparatus for supercooling and solidifying substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650  
Containerless high purity pulling process and apparatus for glass fibers  
[NASA-CASE-MFS-25905-2] c 31 N84-32569

CONTAINERS

Fluid containers and resealable septum therefor Patent  
[NASA-CASE-NPO-10123] c 15 N71-24835  
Method for detecting leaks in hermetically sealed containers Patent  
[NASA-CASE-ERC-10045] c 15 N71-24910  
Apparatus for detecting the amount of material in a resonant cavity container Patent  
[NASA-CASE-XNP-02500] c 18 N71-27397

CONTAINMENT

Hemispherical latching apparatus for payload retention  
[NASA-CASE-MFS-25637] c 16 N82-31398

CONTAMINANTS

Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
[NASA-CASE-XMS-01905] c 12 N71-21089  
Moisture content and gas sampling device --- to test hermetically sealed electronic equipment  
[NASA-CASE-MSC-18866-1] c 35 N82-26634  
Method and apparatus for mapping the distribution of chemical elements in an extended medium  
[NASA-CASE-GSC-12808-1] c 45 N83-20446

CONTAMINATION

Spectral method for monitoring atmospheric contamination of inert-gas welding shields Patent  
[NASA-CASE-XMF-02039] c 15 N71-15871  
Separation nut Patent  
[NASA-CASE-XGS-01971] c 15 N71-15922  
Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372  
Bacterial contamination monitor  
[NASA-CASE-GSC-10879-1] c 14 N72-25413  
Biocontamination and particulate detection system  
[NASA-CASE-NPO-13953-1] c 35 N79-28527

CONTINUOUS RADIATION

CW ultrasonic bolt tensioning monitor  
[NASA-CASE-LAR-12016-1] c 39 N78-15512  
Pseudo continuous wave instrument --- ultrasonics  
[NASA-CASE-LAR-12260-1] c 35 N79-10390  
Low-frequency radio navigation system  
[NASA-CASE-NPO-15264-1] c 04 N84-27713

CONTINUOUS WAVE LASERS

High power laser apparatus and system  
[NASA-CASE-XLE-2529-2] c 36 N75-27364

Continuous plasma laser --- method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma  
[NASA-CASE-XNP-04167-3] c 36 N77-19416

Stark effect spectrophone for continuous absorption spectra monitoring --- a technique for gas analysis  
[NASA-CASE-NPO-15102-1] c 25 N81-25159

Coherently pulsed laser source  
[NASA-CASE-NPO-15111-1] c 36 N82-29589  
Spectrophone stabilized laser with line center offset frequency control  
[NASA-CASE-NPO-15516-1] c 36 N84-22943

CONTINUOUS WAVE RADAR

Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680  
FM/CW radar system  
[NASA-CASE-MFS-22234-1] c 32 N79-10264

CONTOURS

Contour surveying system Patent  
[NASA-CASE-XLA-08646] c 14 N71-17586  
Contourograph system for monitoring electrocardiograms  
[NASA-CASE-MSC-13407-1] c 10 N72-20225  
Variable contour securing system  
[NASA-CASE-MSC-16270-1] c 37 N78-27423  
Device for measuring the contour of a surface  
[NASA-CASE-LAR-11869-1] c 74 N78-27904  
Contour detector and data acquisition system for the left ventricular outline  
[NASA-CASE-ARC-10985-1] c 52 N79-10724  
Contour measurement system  
[NASA-CASE-MFS-23726-1] c 43 N79-26439  
Cork-resin ablative insulation for complex surfaces and method for applying the same  
[NASA-CASE-MFS-23626-1] c 24 N80-26388  
Surface conforming thermal/pressure seal --- tail assemblies of space shuttle orbiters  
[NASA-CASE-MSC-18422-1] c 37 N82-16408  
Method and apparatus for contour mapping using synthetic aperture radar  
[NASA-CASE-NPO-15939-1] c 43 N83-20324

CONTROL

Dual latching solenoid valve Patent  
[NASA-CASE-XMS-05890] c 09 N71-23191  
Apparatus for testing a pressure responsive instrument Patent  
[NASA-CASE-XMF-04134] c 14 N71-23755  
Failure detection and control means for improved drift performance of a gimbaled platform system  
[NASA-CASE-MFS-23551-1] c 04 N76-26175  
Power factor control system for ac induction motors  
[NASA-CASE-MFS-23988-1] c 33 N81-27395  
Television camera video level control system --- space shuttle orbiters  
[NASA-CASE-MSC-18578-1] c 74 N82-27121  
Control means for a solid state crossbar switch  
[NASA-CASE-NPO-15066-1] c 33 N82-29538

CONTROL BOARDS

Pressure monitoring with a plurality of ionization gauges controlled at a central location Patent  
[NASA-CASE-XLE-00787] c 14 N71-21090

CONTROL DATA (COMPUTERS)

Computer interface system  
[NASA-CASE-NPO-13428-1] c 60 N77-12721

CONTROL EQUIPMENT

Stepping motor control circuit Patent  
[NASA-CASE-GSC-10366-1] c 10 N71-18772  
Drift compensation circuit for analog to digital converter Patent  
[NASA-CASE-XNP-04780] c 08 N71-19687  
Altitude controls for VTOL aircraft Patent  
[NASA-CASE-XAC-08972] c 02 N71-20570  
Control device Patent  
[NASA-CASE-XAC-10019] c 15 N71-23809  
Controlled release device Patent  
[NASA-CASE-XKS-03338] c 15 N71-24043  
Dual polarity full wave dc motor drive Patent  
[NASA-CASE-XNP-07477] c 09 N71-26092  
Digital memory in which the driving of each word location is controlled by a switch core Patent  
[NASA-CASE-XNP-01466] c 10 N71-26434  
Fluid jet amplifier Patent  
[NASA-CASE-XLE-09341] c 12 N71-28741  
System for controlling the operation of a variable signal device  
[NASA-CASE-NPO-11064] c 07 N72-11150  
Solid state remote circuit selector switch  
[NASA-CASE-LEW-10387] c 09 N72-22201  
Synchronous orbit battery cyclor  
[NASA-CASE-GSC-11211-1] c 03 N72-25020  
Infinite range electronics gain control circuit  
[NASA-CASE-GSC-10786-1] c 10 N72-28241  
Interferometric rotation sensor  
[NASA-CASE-ARC-10278-1] c 14 N73-25463

Digital controller for a Baum folding machine --- providing automatic counting and machine shutoff  
[NASA-CASE-LAR-10688-1] c 37 N74-21056

Flow control valve --- for high temperature fluids  
[NASA-CASE-NPO-11951-1] c 37 N74-21065

Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041

Anthropomorphic master/slave manipulator system  
[NASA-CASE-ARC-10756-1] c 54 N77-32721

Power factor control system for AC induction motors  
[NASA-CASE-MFS-23280-1] c 33 N78-10376

Variable cycle gas turbine engines  
[NASA-CASE-LEW-12916-1] c 37 N78-17384

Control for nuclear thermionic power source  
[NASA-CASE-NPO-13114-2] c 73 N78-28913

Illumination control apparatus for compensating solar light  
[NASA-CASE-KSC-11010-1] c 74 N79-12890

Dual acting slit control mechanism  
[NASA-CASE-LAR-11370-1] c 35 N80-28686

Pneumatic inflatable end effector  
[NASA-CASE-MFS-23696-1] c 54 N81-26718

Means for controlling aerodynamically induced twist  
[NASA-CASE-LAR-12175-1] c 05 N82-28279

Electronic system for high power load control --- solar arrays  
[NASA-CASE-NPO-15358-1] c 33 N83-27126

Apparatus for adapting an end effector device remotely controlled manipulator arm  
[NASA-CASE-MFS-25949-1] c 37 N84-11501

Pulsed thyristor trigger control circuit  
[NASA-CASE-MFS-25616-1] c 33 N84-16455

CONTROL ROCKETS

Decomposition unit Patent  
[NASA-CASE-XMS-00583] c 28 N70-38504

CONTROL RODS

Null device for hand controller Patent  
[NASA-CASE-XLA-01808] c 15 N71-20740

CONTROL SIMULATION

Helmet weight simulator  
[NASA-CASE-LAR-12320-1] c 54 N81-27806

CONTROL STABILITY

Apparatus for sensor failure detection and correction in a gas turbine engine control system  
[NASA-CASE-LEW-12907-2] c 07 N81-19115  
Apparatus for damping operator induced oscillations of a controlled system --- flight control  
[NASA-CASE-FRC-11041-1] c 33 N82-18493

CONTROL SURFACES

Conical valve plug Patent  
[NASA-CASE-XLE-00715] c 15 N70-34859

Attitude control for spacecraft Patent  
[NASA-CASE-XNP-02982] c 31 N70-41855

Vortex-lift roll-control device  
[NASA-CASE-LAR-11868-2] c 08 N79-14108

Aerodynamic side-force alleviator means  
[NASA-CASE-LAR-12326-1] c 02 N81-14968

Thermal barrier pressure seal --- shielding junctions between spacecraft control surfaces and structures  
[NASA-CASE-MSC-18134-1] c 37 N81-15363

CONTROL UNITS (COMPUTERS)

Self-testing and repairing computer Patent  
[NASA-CASE-NPO-10567] c 08 N71-24633

CONTROL VALVES

Electromechanical actuator  
[NASA-CASE-XNP-05975] c 15 N69-23185

Full flow with shut off and selective drainage control valve Patent application  
[NASA-CASE-ERC-10208] c 15 N70-10867

Conical valve plug Patent  
[NASA-CASE-XLE-00715] c 15 N70-34859

Control valve and co-axial variable injector Patent  
[NASA-CASE-XNP-09702] c 15 N71-17654

Electrohydrodynamic control valve Patent  
[NASA-CASE-NPO-10416] c 12 N71-27332

Force-balanced, throttle valve Patent  
[NASA-CASE-NPO-10808] c 15 N71-27432

Dual stage check valve  
[NASA-CASE-MSC-13587-1] c 15 N73-30459

Airflow control system for supersonic inlets  
[NASA-CASE-LEW-11188-1] c 02 N74-20646

Ultrasonically bonded valve assembly  
[NASA-CASE-NPO-13360-1] c 37 N75-25185

Pressure modulating valve  
[NASA-CASE-MSC-14905-1] c 37 N77-28487

Fluid valve assembly  
[NASA-CASE-MSC-12731-1] c 37 N78-25426

Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N79-33468

Quartz ball valve  
[NASA-CASE-NPO-14473-1] c 37 N80-23654

Pressure control valve --- inflating flexible bladders  
[NASA-CASE-ARC-11251-1] c 37 N81-17433

- Electrical servo actuator bracket --- fuel control valves on jet engines  
[NASA-CASE-FRC-11044-1] c 37 N81-33483
- Slow opening valve  
[NASA-CASE-MSC-20112-1] c 37 N82-28641
- Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31603
- CONTROLLED ATMOSPHERES**
- Electrical connector Patent Application  
[NASA-CASE-MFS-14741] c 09 N70-20737
- High voltage pulse generator Patent  
[NASA-CASE-MSC-12178-1] c 09 N71-13518
- Exposure system for animals Patent  
[NASA-CASE-XAC-05333] c 11 N71-22875
- Method and apparatus for growth of crystals by pressure reduction of supercritical or subcritical solution  
[NASA-CASE-NPO-15772-1] c 76 N82-23031
- Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612
- CONTROLLERS**
- Three axis controller Patent  
[NASA-CASE-XFR-00181] c 21 N70-33279
- Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073
- Controllers Patent  
[NASA-CASE-XMS-07487] c 15 N71-23255
- Solid state controller three axes controller  
[NASA-CASE-MSC-12394-1] c 08 N74-10942
- Wide power range microwave feedback controller  
[NASA-CASE-GSC-12146-1] c 33 N78-32340
- Active nutation controller  
[NASA-CASE-GSC-12273-1] c 35 N80-21719
- Phase-angle controller for Stirling engines  
[NASA-CASE-NPO-14388-1] c 37 N81-17432
- Controller for computer control of brushless dc motors --- automobile engines  
[NASA-CASE-NPO-13970-1] c 33 N81-20352
- Motor power factor controller with a reduced voltage starter  
[NASA-CASE-MFS-25586-1] c 33 N82-11360
- Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098
- Phase detector for three-phase power factor controller  
[NASA-CASE-MFS-25854-1] c 33 N84-27975
- Three-phase power factor controller with induced EMF sensing  
[NASA-CASE-MFS-25852-1] c 33 N84-33661
- CONVECTION**
- Method and apparatus for minimizing convection during crystal growth from solution  
[NASA-CASE-NPO-15811-1] c 76 N84-12968
- CONVECTIVE FLOW**
- Geysering inhibitor for vertical cryogenic transfer pipe  
[NASA-CASE-KSC-10615] c 15 N73-12486
- Method and apparatus for convection control of metallic halide vapor density in a metallic halide laser  
[NASA-CASE-NPO-15021-1] c 36 N83-10417
- CONVECTIVE HEAT TRANSFER**
- Thin film gauge --- for measuring convective heat transfer rates along test surfaces in wind tunnels  
[NASA-CASE-NPO-10617-1] c 35 N74-22095
- CONVERGENCE**
- Shock wave convergence apparatus  
[NASA-CASE-MFS-20890] c 14 N72-22439
- CONVERGENT NOZZLES**
- Nozzle extraction process and handmeter for measuring handle  
[NASA-CASE-LAR-12147-1] c 31 N79-11246
- CONVERGENT-DIVERGENT NOZZLES**
- Gimballed, partially submerged rocket nozzle Patent  
[NASA-CASE-XMF-01544] c 28 N70-34162
- Combustion chamber Patent  
[NASA-CASE-XLE-04857] c 28 N71-23968
- Aircraft engine nozzle  
[NASA-CASE-ARC-10977-1] c 07 N80-32392
- Wind tunnel supplementary Mach number minimum section insert  
[NASA-CASE-LAR-12532-1] c 09 N82-11088
- CONVERTERS**
- Scan converting video tape recorder  
[NASA-CASE-NPO-10166-2] c 35 N76-16391
- CONVEYORS**
- System and method for refurbishing and processing parachutes --- monorial conveyor system  
[NASA-CASE-KSC-11042-2] c 02 N81-26073
- Method for refurbishing and processing parachutes  
[NASA-CASE-KSC-11042-1] c 09 N82-29330
- Static continuous electrophoresis device  
[NASA-CASE-MFS-25306-1] c 25 N83-13187
- Acoustic system for material transport  
[NASA-CASE-NPO-15453-1] c 71 N83-32515
- COOLERS**
- Stirling cycle cryogenic cooler --- magnetically suspended pistons  
[NASA-CASE-GSC-12697-1] c 31 N82-11312
- COOLING**
- Microwave power receiving antenna Patent  
[NASA-CASE-MFS-20333] c 09 N71-13486
- Voltage regulator with plural parallel power source sections Patent  
[NASA-CASE-GSC-10891-1] c 10 N71-26626
- Laser coolant and ultraviolet filter  
[NASA-CASE-MFS-20180] c 16 N72-12440
- Compact pulsed laser having improved heat conductance  
[NASA-CASE-NPO-13147-1] c 36 N77-25502
- Heat pipe cooled probe  
[NASA-CASE-LAR-12588-1] c 44 N81-24525
- Steam cooled rich-burn combustor liner  
[NASA-CASE-LEW-13609-1] c 25 N83-17628
- Heating and cooling system --- for fatigue test specimens  
[NASA-CASE-LAR-12393-1] c 34 N83-34221
- Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560
- Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577
- Air modulation apparatus  
[NASA-CASE-LEW-13524-1] c 07 N84-33410
- COOLING SYSTEMS**
- Automatic thermal switch Patent  
[NASA-CASE-XNP-03796] c 23 N71-15467
- Differential temperature transducer Patent  
[NASA-CASE-XAC-00812] c 14 N71-15598
- Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114-2] c 09 N71-24807
- Cryogenic cooling system Patent  
[NASA-CASE-NPO-10467] c 23 N71-26654
- Self-adjusting multisegment, deployable, natural circulation radiator Patent  
[NASA-CASE-XHQ-03673] c 33 N71-29046
- Heat conductive resiliently compressible structure for space electronics package modules Patent  
[NASA-CASE-MSC-12389] c 33 N71-29052
- Method and device for cooling Patent  
[NASA-CASE-HQN-00938] c 33 N71-29053
- Liquid spray cooling method Patent  
[NASA-CASE-XLE-00027] c 33 N71-29152
- Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948
- Light shield and cooling apparatus --- high intensity ultraviolet lamp  
[NASA-CASE-LAR-10089-1] c 34 N74-23066
- Refrigerated coaxial coupling --- for microwave equipment  
[NASA-CASE-NPO-13504-1] c 33 N75-30430
- Rocket chamber and method of making  
[NASA-CASE-LEW-11118-2] c 20 N76-14191
- Tubular sublimatory evaporator heat sink  
[NASA-CASE-ARC-10912-1] c 34 N77-19353
- Arc control in compact arc lamps  
[NASA-CASE-NPO-10870-1] c 33 N77-22386
- Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12830-1] c 07 N77-23106
- Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12321-1] c 37 N78-10467
- Closed loop spray cooling apparatus --- for particle accelerator targets  
[NASA-CASE-LEW-11981-1] c 31 N78-17237
- Multistation refrigeration system  
[NASA-CASE-NPO-13839-1] c 31 N78-25256
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721
- Heat exchanger --- rocket combustion chambers and cooling systems  
[NASA-CASE-LEW-12252-1] c 34 N79-13288
- Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-2] c 34 N79-20336
- Ozonation of cooling tower waters  
[NASA-CASE-NPO-14340-1] c 45 N80-14579
- Heat exchanger and method of making  
[NASA-CASE-LEW-12441-3] c 44 N81-24519
- Heat pipe cooled probe  
[NASA-CASE-LAR-12588-1] c 44 N81-24525
- Cooling system for high speed aircraft  
[NASA-CASE-LAR-12406-1] c 05 N81-26114
- Waveguide cooling system  
[NASA-CASE-NPO-15401-1] c 32 N83-27085
- Cooling by conversion of para to ortho-hydrogen  
[NASA-CASE-GSC-12770-1] c 25 N83-29324
- Vortex generating flow passage design for increased film cooling effectiveness  
[NASA-CASE-LEW-14039-1] c 34 N84-20782
- Radiative cooler --- spacecraft radiators  
[NASA-CASE-NPO-15465-1] c 34 N84-22903
- Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577
- Reciprocating magnetic refrigerator employing tandem porous matrices within a reciprocating displacer  
[NASA-CASE-NPO-16257-1] c 31 N84-24830
- COORDINATES**
- Mechanical coordinate converter Patent  
[NASA-CASE-XNP-00614] c 14 N70-36907
- Lightning tracking system  
[NASA-CASE-KSC-10729-1] c 09 N73-32110
- Magnetic heading reference  
[NASA-CASE-LAR-11387-2] c 04 N77-19056
- COPOLYMERIZATION**
- Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-2] c 27 N83-30651
- Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-3] c 24 N84-22698
- Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-4] c 24 N84-22699
- Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-5] c 24 N84-22700
- Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-6] c 24 N84-22701
- Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-1] c 27 N84-27885
- COPOLYMERS**
- Method of producing alternating ether siloxane copolymers Patent  
[NASA-CASE-XMF-02584] c 06 N71-20905
- Dicyanoacetylene polymers Patent  
[NASA-CASE-XNP-03250] c 06 N71-23500
- Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-3] c 27 N80-24438
- Insoluble polyelectrolyte and ion-exchange hollow fiber impregnated therewith  
[NASA-CASE-NPO-13530-1] c 25 N81-17187
- Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531
- Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275
- COPPER**
- Method for etching copper Patent  
[NASA-CASE-XGS-06306] c 17 N71-16044
- Method of plating copper on aluminum Patent  
[NASA-CASE-XLA-08966-1] c 17 N71-25903
- Brazing alloy composition  
[NASA-CASE-XMF-06053] c 26 N75-27126
- Method for making an aluminum or copper substrate panel for selective absorption of solar energy  
[NASA-CASE-MFS-23518-1] c 44 N79-11469
- COPPER ALLOYS**
- Zirconium modified nickel-copper alloy  
[NASA-CASE-LEW-12245-1] c 26 N77-20201
- Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015
- COPPER COMPOUNDS**
- Simple method of making photovoltaic junctions Patent  
[NASA-CASE-XNP-01960] c 09 N71-23027
- Laser coolant and ultraviolet filter  
[NASA-CASE-MFS-20180] c 16 N72-12440
- Brazing alloy  
[NASA-CASE-XNP-03878] c 26 N75-27127
- COPPER FLUORIDES**
- Preparation of high purity copper fluoride  
[NASA-CASE-LEW-10794-1] c 06 N72-17093
- CORDAGE**
- Method of forming a root cord restrained convolute section  
[NASA-CASE-MSC-12398] c 05 N72-20098
- CORE STORAGE**
- Semiconductor-ferroelectric memory device  
[NASA-CASE-ERC-10307] c 08 N72-21198
- CORES**
- Method of making rolling element bearings  
[NASA-CASE-LEW-11087-2] c 37 N74-15128
- Electromagnetic transducer recording head having a laminated core section and tapered gap  
[NASA-CASE-NPO-10711-1] c 35 N77-21392
- Superplastically formed diffusion bonded metallic structure  
[NASA-CASE-FRC-11026-1] c 24 N82-24296
- CORK (MATERIALS)**
- Cork-resin ablative insulation for complex surfaces and method for applying the same  
[NASA-CASE-MFS-23626-1] c 24 N80-26388

## CORRECTION

Doppler frequency spread correction device for multiplex transmissions  
[NASA-CASE-XGS-02749] c 07 N69-39978

## CORRELATION

Clutter free synthetic aperture radar correlator  
[NASA-CASE-NPO-14035-1] c 32 N83-18968

## CORRELATION DETECTION

Correlation type phase detector — with time correlation integrator for frequency multiplexed signals  
[NASA-CASE-GSC-11744-1] c 33 N75-26243  
Interferometric locating system  
[NASA-CASE-NPO-14173-1] c 04 N80-32359

## CORRELATORS

Millimeter wave radiometer for radio astronomy Patent  
[NASA-CASE-XNP-09832] c 30 N71-23723  
Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267  
Baseband signal combiner for large aperture antenna array  
[NASA-CASE-NPO-14641-1] c 32 N81-29308  
Serial data correlator/code translator  
[NASA-CASE-KSC-11025-1] c 32 N83-13323

## CORROSION

Method of neutralizing the corrosive surface of amine-cured epoxy resins  
[NASA-CASE-GSC-12686-1] c 27 N83-34039

## CORROSION PREVENTION

Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00284] c 15 N71-16075  
Method of inhibiting stress corrosion cracks in titanium alloys Patent  
[NASA-CASE-NPO-10271] c 17 N71-16393  
Controlled glass bead peening Patent  
[NASA-CASE-XLA-07390] c 15 N71-18616  
Corrosion resistant beryllium Patent  
[NASA-CASE-LEW-10327] c 17 N71-33408  
Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions — by adding potassium hydroxide to hydrazine  
[NASA-CASE-NPO-12122-1] c 24 N76-14203  
Ozonation of cooling tower waters  
[NASA-CASE-NPO-14340-1] c 45 N80-14579  
Method of protecting a surface with a silicon-slurry/aluminate coating — coatings for gas turbine engine blades and vanes  
[NASA-CASE-LEW-13343-1] c 27 N82-28441  
Heat pipes containing alkali metal working fluid  
[NASA-CASE-LEW-12253-1] c 74 N83-19596  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670

## CORROSION RESISTANCE

High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-00726] c 17 N71-15644  
Solder flux which leaves corrosion-resistant coating Patent  
[NASA-CASE-XNP-03459-2] c 18 N71-15688  
High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-02991] c 17 N71-18025  
Soldering with solder flux which leaves corrosion resistant coating Patent  
[NASA-CASE-XNP-03459] c 15 N71-21078  
Method of making bearing material  
[NASA-CASE-LEW-11930-3] c 24 N80-33482  
Corrosion resistant thermal barrier coating — protecting gas turbines and other engine parts  
[NASA-CASE-LEW-13088-1] c 26 N81-25188  
Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371  
Covering solid, film cooled surfaces with a duplex thermal barrier coating  
[NASA-CASE-LEW-13450-1] c 31 N83-35177  
Corrosion resistant coating  
[NASA-CASE-NPO-15928-1] c 26 N84-12289

## CORRUGATED PLATES

Superplastically formed diffusion bonded metallic structure  
[NASA-CASE-FRC-11026-1] c 24 N82-24296

## CORRUGATING

Collapsible corrugated horn antenna  
[NASA-CASE-LAR-11745-1] c 32 N80-29539  
Superplastically formed diffusion bonded metallic structure  
[NASA-CASE-FRC-11026-1] c 24 N82-24296  
Curved cap corrugated sheet  
[NASA-CASE-LAR-12884-1] c 18 N84-33450

## COSINE SERIES

Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-10503-1] c 09 N72-21248  
Function generator for synthesizing complex vibration mode patterns  
[NASA-CASE-LAR-10310-1] c 10 N73-20253

## COSMIC DUST

Cosmic dust sensor  
[NASA-CASE-GSC-10503-1] c 14 N72-20381  
Cosmic dust or other similar outer space particles impact location detector  
[NASA-CASE-GSC-11291-1] c 25 N72-33696  
Impact position detector for outer space particles  
[NASA-CASE-GSC-11829-1] c 35 N75-27331  
Cosmic dust analyzer  
[NASA-CASE-MSC-13802-2] c 35 N76-15431

## COST ANALYSIS

Low cost solar energy collection system  
[NASA-CASE-NPO-13579-1] c 44 N78-17460

## COST EFFECTIVENESS

Glass heating panels and method for preparing the same from architectural reflective glass  
[NASA-CASE-NPO-15753-1] c 27 N84-33589

## COST REDUCTION

An improved synthesis of 2,4,8,10-tetroxaspiro (5.5) undecane  
[NASA-CASE-ARC-11243-2] c 23 N80-31472

## COUCHES

Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152  
Energy absorbing structure Patent Application  
[NASA-CASE-MSC-12279-1] c 15 N70-35679  
Articulated multiple couch assembly Patent  
[NASA-CASE-MSC-11253] c 05 N71-12343  
Collapsible Apollo couch  
[NASA-CASE-MSC-13140] c 05 N72-11085

## COULOMETERS

Electrochemical coulometer and method of forming same Patent  
[NASA-CASE-XGS-05434] c 03 N71-20491  
Coulometer and third electrode battery charging circuit Patent  
[NASA-CASE-GSC-10487-1] c 03 N71-24719  
State-of-charge coulometer  
[NASA-CASE-NPO-15759-1] c 35 N82-26630

## COUNTERS

Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137  
Electronic strain-level counter  
[NASA-CASE-LAR-10756-1] c 32 N73-26910  
Electrochemical detection device — for use in microbiology  
[NASA-CASE-LAR-11922-1] c 25 N79-24073  
Redundant operation of counter modules  
[NASA-CASE-NPO-14162-1] c 60 N81-15706  
Film advance indicator  
[NASA-CASE-LAR-12474-1] c 35 N82-26628  
Apparatus and process for microbial detection and enumeration  
[NASA-CASE-LAR-12709-1] c 35 N82-28604

## COUNTING CIRCUITS

Scanning aspect sensor employing an apertured disc and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432  
Ring counter  
[NASA-CASE-XGS-03095] c 09 N69-27463  
Relay binary circuit Patent  
[NASA-CASE-XMF-00421] c 09 N70-34502  
Reversible ring counter employing cascaded single SCR stages Patent  
[NASA-CASE-XGS-01473] c 09 N71-10673  
Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent  
[NASA-CASE-XLE-01246] c 14 N71-10797  
Magnetic counter Patent  
[NASA-CASE-XNP-08836] c 09 N71-12515  
Synchronous counter Patent  
[NASA-CASE-XGS-02440] c 08 N71-19432  
Digital cardiachometer system Patent  
[NASA-CASE-XMS-02399] c 05 N71-22896  
Counter and shift register Patent  
[NASA-CASE-XNP-01753] c 08 N71-22897  
Noninterruptable digital counting system Patent  
[NASA-CASE-XNP-09759] c 08 N71-24891  
Frequency measurement by coincidence detection with standard frequency  
[NASA-CASE-MSC-14649-1] c 33 N76-16331  
Redundant operation of counter modules  
[NASA-CASE-NPO-14162-1] c 60 N81-15706

## COUPLING

Coupling for linear shaped charge Patent  
[NASA-CASE-XLA-00189] c 33 N70-36846  
Expandable support means  
[NASA-CASE-NPO-11059] c 15 N72-17454  
Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N82-26568  
Electrical power generating system  
[NASA-CASE-MFS-25302-1] c 33 N83-28319

Coupling an induction motor type generator to ac power lines — making windmill generators compatible with public power lines  
[NASA-CASE-MFS-25302-2] c 33 N84-33660

## COUPLING CIRCUITS

Flipflop interrogator and bi-polar current driver Patent  
[NASA-CASE-XGS-03058] c 10 N71-19547  
Antenna array at focal plane of reflector with coupling network for beam switching Patent  
[NASA-CASE-GSC-10220-1] c 07 N71-27233  
Phase modulator Patent  
[NASA-CASE-MSC-13201-1] c 07 N71-28429  
Signal path series step biased multidevice high efficiency amplifier Patent  
[NASA-CASE-GSC-10668-1] c 07 N71-28430  
Automatic quadrature control and measuring system — using optical coupling circuitry  
[NASA-CASE-MFS-21660-1] c 35 N74-21017  
Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-3] c 33 N75-19520  
Non-contacting power transfer device  
[NASA-CASE-GSC-12595-1] c 33 N82-24422

## COUPLINGS

Coupling device  
[NASA-CASE-XMS-07846-1] c 09 N69-21927  
Tubular coupling having frangible connecting means  
[NASA-CASE-XLA-02854] c 15 N69-27490  
Quick release separation mechanism Patent  
[NASA-CASE-XLA-01441] c 15 N70-41679  
Indexed keyed connection Patent  
[NASA-CASE-XMS-02532] c 15 N70-41808  
Quick attach and release fluid coupling assembly Patent  
[NASA-CASE-XKS-01985] c 15 N71-10782  
Ratchet mechanism Patent  
[NASA-CASE-MFS-12805] c 15 N71-17805  
Split nut separation system Patent  
[NASA-CASE-XNP-06914] c 15 N71-21489  
Duct coupling for single-handed operation Patent  
[NASA-CASE-MFS-20395] c 15 N71-24903  
Isolation coupling arrangement for a torque measuring system  
[NASA-CASE-XLA-04897] c 15 N72-22482  
Refrigerated coaxial coupling — for microwave equipment  
[NASA-CASE-NPO-13504-1] c 33 N75-30430  
Opto-mechanical subsystem with temperature compensation through isothermal design  
[NASA-CASE-GSC-12059-1] c 35 N77-27366  
Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772  
Coupling device for moving vehicles  
[NASA-CASE-GSC-12322-1] c 37 N80-14398  
Device for coupling a first vehicle to a second vehicle  
[NASA-CASE-GSC-12429-1] c 37 N81-14320  
Micro-fluid exchange coupling apparatus  
[NASA-CASE-ARC-11114-1] c 51 N81-14605  
Reusable captive blind fastener  
[NASA-CASE-MSC-18742-1] c 37 N82-26673  
Connection system  
[NASA-CASE-MSC-20319-1] c 37 N82-31689  
Apparatus for releasably connecting first and second objects in predetermined space relationship  
[NASA-CASE-MSC-18969-1] c 18 N84-22605

## COVARIANCE

Auto covariance computer  
[NASA-CASE-LAR-12968-1] c 35 N83-34273

## COVERINGS

Apparatus for ejection of an instrument cover  
[NASA-CASE-XMF-04132] c 15 N69-27502  
Fire blocking systems for aircraft seat cushions  
[NASA-CASE-ARC-11423-1] c 03 N84-33394

## COWLINGS

Thrust reverser for a long duct fan engine — for turbofan engines  
[NASA-CASE-LEW-13199-1] c 07 N82-26293

## CRACKING (FRACTURING)

Method of inhibiting stress corrosion cracks in titanium alloys Patent  
[NASA-CASE-NPO-10271] c 17 N71-16393  
TV fatigue crack monitoring system  
[NASA-CASE-LAR-11490-1] c 39 N78-16387

## CRASH LANDING

Aircraft-mounted crash-activated transmitter device  
[NASA-CASE-MFS-16609-3] c 03 N78-32140

## CREEP RUPTURE STRENGTH

Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent  
[NASA-CASE-XLE-02082] c 17 N71-16026

## CRITICAL EXPERIMENTS

Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372

## CRITICAL LOADING

Portable 90 deg proof loading device  
[NASA-CASE-MSC-20250-1] c 37 N83-29707

## CRITICAL TEMPERATURE

Stable superconducting magnet — high current levels below critical temperature  
[NASA-CASE-XMF-05373-1] c 33 N79-21264

## CROSS CORRELATION

Cross correlation anomaly detection system  
[NASA-CASE-NPO-13283] c 38 N78-17395  
Method and apparatus for calibrating the ionosphere and application to surveillance of geophysical events  
[NASA-CASE-NPO-15430-1] c 46 N82-26890

## CROSS FLOW

Aerodynamic side-force alleviator means  
[NASA-CASE-LAR-12326-1] c 02 N81-14968

## CROSS POLARIZATION

Adaptive polarization separation  
[NASA-CASE-LAR-12196-1] c 33 N81-26358

## CROSS SECTIONS

Discharge cell for optogalvanic spectroscopy having orthogonal relationship between the probe laser and discharge axis  
[NASA-CASE-NPO-16271-1] c 36 N84-15537

## CROSSED FIELDS

Plasma accelerator Patent  
[NASA-CASE-XLA-00675] c 25 N70-33267  
Energy conversion apparatus Patent  
[NASA-CASE-XLE-00212] c 03 N70-34134  
Crossed-field MHD plasma generator/accelerator Patent  
[NASA-CASE-XLA-03374] c 25 N71-15562

## CROSSLINKING

Trifunctional alcohol  
[NASA-CASE-NPO-10714] c 06 N69-31244  
Trimerization of aromatic nitriles  
[NASA-CASE-LEW-12053-1] c 27 N78-15276  
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles  
[NASA-CASE-ARC-11008-1] c 27 N78-31232  
In situ self cross-linking of polyvinyl alcohol battery separators  
[NASA-CASE-LEW-12972-1] c 44 N79-25481  
Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby  
[NASA-CASE-LEW-12053-2] c 27 N79-28307  
Method of cross-linking polyvinyl alcohol and other water soluble resins  
[NASA-CASE-LEW-13103-1] c 27 N80-32516  
Thermoset-thermoplastic aromatic polyamides  
[NASA-CASE-LAR-12723-1] c 27 N81-15107  
Process for the preparation of fluorine containing crosslinked elastomeric polytriazine and product so produced  
[NASA-CASE-ARC-11248-1] c 27 N81-17259  
The 1,2,4-oxadiazole elastomers — heat resistant polymers  
[NASA-CASE-ARC-11253-1] c 27 N81-17262  
In-situ cross linking of polyvinyl alcohol — application to battery separator films  
[NASA-CASE-LEW-13135-2] c 27 N81-24257  
Cross-linked polyvinyl alcohol and method of making same  
[NASA-CASE-LEW-13101-2] c 23 N81-29160  
Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531  
Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188  
Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900  
Low temperature cross linking polyimides  
[NASA-CASE-LEW-12876-2] c 27 N83-29392  
Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950  
Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups — for thermoplastic resins  
[NASA-CASE-LAR-12838-1] c 27 N83-34040  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-3] c 24 N84-22698  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-4] c 24 N84-22699  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-5] c 24 N84-22700  
Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-6] c 24 N84-22701  
Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744

Ethynyl and substituted ethynyl-terminated polysulfones  
[NASA-CASE-LAR-12931-1] c 27 N84-22747  
Phenoxy resins containing pendent ethynyl groups and cured resins therefrom  
[NASA-CASE-LAR-13262-1] c 27 N84-24805  
Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988

## CRUCIBLES

Evaporant holder  
[NASA-CASE-XLA-03105] c 15 N69-27483

## CRUCIFORM WINGS

Solar powered aircraft  
[NASA-CASE-LAR-12615-1] c 05 N84-12154

## CRUDE OIL

Decontamination of petroleum products Patent  
[NASA-CASE-XNP-03835] c 06 N71-23499  
Crude oil desulfurization  
[NASA-CASE-NPO-14542-1] c 25 N82-23282

## CRUSTAL FRACTURES

System for real-time crustal deformation monitoring  
[NASA-CASE-NPO-14124-1] c 46 N80-14603

## CRYOGENIC COOLING

Support assembly for cryogenically coolable low-noise choke waveguide  
[NASA-CASE-NPO-14253-1] c 32 N80-32605  
Low cost cryostat  
[NASA-CASE-NPO-14513-1] c 35 N81-14287  
Stirling cycle cryogenic cooler — magnetically suspended pistons  
[NASA-CASE-GSC-12697-1] c 31 N82-11312  
Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574  
Propulsion apparatus and method using boil-off gas from a cryogenic liquid — controlling spacecraft attitude and drag  
[NASA-CASE-MFS-25946-1] c 20 N84-15183

## CRYOGENIC EQUIPMENT

Refrigeration apparatus  
[NASA-CASE-NPO-10309] c 15 N69-23190  
Piping arrangement through a double chamber structure  
[NASA-CASE-XNP-08882] c 15 N69-39935  
Method and apparatus for cryogenic wire stripping Patent  
[NASA-CASE-MFS-10340] c 15 N71-17628  
Dual solid cryogens for spacecraft refrigeration Patent  
[NASA-CASE-GSC-10188-1] c 23 N71-24725  
Valving device for automatic refilling in cryogenic liquid systems  
[NASA-CASE-NPO-11177] c 15 N72-17453  
Dual stage check valve  
[NASA-CASE-MSC-13587-1] c 15 N73-30459  
Heat operated cryogenic electrical generator  
[NASA-CASE-NPO-13303-1] c 20 N75-24837  
Cryostat system for temperatures on the order of 2 deg K or less  
[NASA-CASE-NPO-13459-1] c 31 N77-10229  
Device for tensioning test specimens within an hermetically sealed chamber  
[NASA-CASE-MFS-23281-1] c 35 N77-22450  
Multistation refrigeration system  
[NASA-CASE-NPO-13839-1] c 31 N78-25256  
System for and method of freezing biological tissue  
[NASA-CASE-GSC-12173-1] c 51 N79-10694  
Shock isolator for operating a diode laser on a closed-cycle refrigerator  
[NASA-CASE-GSC-12297-1] c 37 N79-28549  
Low temperature latching solenoid  
[NASA-CASE-MSC-18106-1] c 33 N82-11357  
Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153  
Resilient seal ring assembly with spring means applying force to wedge member — cryogenic applications  
[NASA-CASE-MFS-25678-1] c 37 N84-11497

## CRYOGENIC FLUID STORAGE

Apparatus for transferring cryogenic liquids Patent  
[NASA-CASE-XLE-00345] c 15 N70-38020  
Cryogenic storage system Patent  
[NASA-CASE-XMS-04390] c 31 N70-41871  
Techniques for insulating cryogenic fuel containers Patent  
[NASA-CASE-XLA-01967] c 31 N70-42015  
Method of making a filament-wound container Patent  
[NASA-CASE-XLE-03803-2] c 15 N71-17651  
Cryogenic insulation system Patent  
[NASA-CASE-XLE-04222] c 23 N71-22881  
Panelized high performance multilayer insulation Patent  
[NASA-CASE-MFS-14023] c 33 N71-25351  
Cryogenic thermal insulation Patent  
[NASA-CASE-XMF-05046] c 33 N71-28892  
Zero gravity shadow shield aligner  
[NASA-CASE-KSC-10622-1] c 31 N72-21893

Heater-mixer for stored fluids  
[NASA-CASE-ARC-10442-1] c 35 N74-15093  
Low heat leak connector for cryogenic system  
[NASA-CASE-XLE-02367-1] c 31 N79-21225  
Cryogenic container compound suspension strap  
[NASA-CASE-ARC-11157-1] c 37 N80-18393  
Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297

## CRYOGENIC FLUIDS

Cryogenic apparatus for measuring the intensity of magnetic fields  
[NASA-CASE-XAC-02407] c 14 N69-27423  
Venting vapor apparatus Patent  
[NASA-CASE-XLE-00288] c 15 N70-34247  
Conical valve plug Patent  
[NASA-CASE-XLE-00715] c 15 N70-34859  
Fluid coupling Patent  
[NASA-CASE-XLE-00397] c 15 N70-36492  
Densitometer Patent  
[NASA-CASE-XLE-00688] c 14 N70-41330  
Cryogenic connector for vacuum use Patent  
[NASA-CASE-XGS-02441] c 15 N70-41629  
Liquid flow sight assembly Patent  
[NASA-CASE-XLE-02998] c 14 N70-42074  
Automatic thermal switch Patent  
[NASA-CASE-XNP-03796] c 23 N71-15467  
Zero gravity separator Patent  
[NASA-CASE-XLE-00588] c 15 N71-15968  
Apparatus for measuring thermal conductivity Patent  
[NASA-CASE-XGS-01052] c 14 N71-15992  
Process of forming particles in a cryogenic path Patent  
[NASA-CASE-NPO-10250] c 23 N71-16212  
Superconducting alternator Patent  
[NASA-CASE-XLE-02823] c 09 N71-23443  
Flow angle sensor and read out system Patent  
[NASA-CASE-XLE-04503] c 14 N71-24864  
Geysering inhibitor for vertical cryogenic transfer pipe  
[NASA-CASE-KSC-10815] c 15 N73-12486  
Magnetocaloric pump — for cryogenic fluids  
[NASA-CASE-LEW-11672-1] c 37 N74-27904  
Cryogenic liquid sensor  
[NASA-CASE-NPO-10619-1] c 35 N77-21393

## CRYOGENIC GYROSCOPES

Cryogenic gyroscope housing — with annular disks for gas spin-up  
[NASA-CASE-MFS-21136-1] c 35 N74-18323

## CRYOGENIC MAGNETS

Superconducting alternator  
[NASA-CASE-XLE-02824] c 03 N69-39890

## CRYOGENIC ROCKET PROPELLANTS

Quick attach and release fluid coupling assembly Patent  
[NASA-CASE-XKS-01985] c 15 N71-10782  
Hot wire liquid level detector for cryogenic fluids Patent  
[NASA-CASE-XLE-00454] c 23 N71-17802  
Automatic pump Patent  
[NASA-CASE-XNP-04731] c 15 N71-24042

## CRYOGENIC STORAGE

Insulation system Patent  
[NASA-CASE-XLE-02647] c 18 N71-23658  
Filament wound container Patent  
[NASA-CASE-XLE-03803] c 15 N71-23816

## CRYOGENIC WIND TUNNELS

Continuous self-locking spiral wound seal — for maintaining pressure between chambers in cryogenic wind tunnels  
[NASA-CASE-LAR-12315-1] c 37 N82-24490

## CRYOGENICS

Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02786] c 17 N71-20743  
Cryogenic cooling system Patent  
[NASA-CASE-NPO-10467] c 23 N71-26654  
Germanium coated microbridge and method  
[NASA-CASE-MFS-23274-1] c 33 N78-13320  
Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures  
[NASA-CASE-NPO-14254-1] c 36 N80-18372  
High toughness-high strength iron alloy  
[NASA-CASE-LEW-12542-3] c 26 N80-32484  
Multispectral scanner optical system  
[NASA-CASE-MSC-18255-1] c 74 N80-33210  
Polymeric compositions and their method of manufacture — forming filled polymer systems using cryogenics  
[NASA-CASE-NPO-10424-1] c 27 N81-24258

## CRYOLITE

Ultraviolet filter  
[NASA-CASE-XNP-02340] c 23 N69-24332

## CRYOSTATS

Low temperature flexure fatigue cryostat Patent  
[NASA-CASE-XMF-02984] c 14 N71-17659  
Horizontal cryostat for fatigue testing Patent  
[NASA-CASE-XMF-10968] c 14 N71-24234



- Heater-mixer for stored fluids  
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[NASA-CASE-XNP-08832] c 08 N71-12506  
Data compression processor Patent  
[NASA-CASE-NPO-10068] c 08 N71-19288  
Wide range data compression system Patent  
[NASA-CASE-XGS-02612] c 08 N71-19435  
Data compressor Patent  
[NASA-CASE-XNP-04067] c 08 N71-22707  
Method and apparatus for data compression by a decreasing slope threshold test  
[NASA-CASE-NPO-10769] c 08 N72-11171  
Data compression system  
[NASA-CASE-NPO-11243] c 07 N72-20154  
Digital slope threshold data compressor  
[NASA-CASE-NPO-11630] c 08 N72-33172

**DATA RETRIEVAL**  
Magnetic matrix memory system Patent  
[NASA-CASE-XMF-05835] c 08 N71-12504  
Asynchronous, multiplexing, single line transmission and recovery data system --- for satellite use  
[NASA-CASE-NPO-13321-1] c 32 N75-26195

**DATA SAMPLING**  
Reduced bandwidth video communication system utilizing sampling techniques Patent  
[NASA-CASE-NPO-02791] c 07 N71-23026  
Signal processing apparatus for multiplex transmission Patent  
[NASA-CASE-NPO-10388] c 07 N71-24622  
Television signal processing system Patent  
[NASA-CASE-NPO-10140] c 07 N71-24742  
Method and apparatus for data compression by a decreasing slope threshold test  
[NASA-CASE-NPO-10769] c 08 N72-11171  
Sampling video compression system  
[NASA-CASE-ARC-10984-1] c 32 N77-24328  
CCD correlated quadruple sampling processor  
[NASA-CASE-NPO-14426-1] c 33 N81-27396

**DATA SMOOTHING**  
Variable time constant smoothing circuit Patent  
[NASA-CASE-XGS-01983] c 10 N70-41964  
Smoothing filter for digital to analog conversion  
[NASA-CASE-FRC-11025-1] c 33 N82-24417

**DATA STORAGE**  
Data handling system based on source significance, storage availability and data received from the source Patent Application  
[NASA-CASE-XNP-04162-1] c 08 N70-34675  
Magnetic matrix memory system Patent  
[NASA-CASE-XMF-05835] c 08 N71-12504  
Tape guidance system and apparatus for the provision thereof Patent  
[NASA-CASE-XNP-09453] c 08 N71-19420  
Event recorder Patent  
[NASA-CASE-XLA-01832] c 14 N71-21006  
System for recording and reproducing pulse code modulated data Patent  
[NASA-CASE-XGS-01021] c 08 N71-21042  
Incremental tape recorder and data rate converter Patent  
[NASA-CASE-XNP-02778] c 08 N71-22710

Multiple hologram recording and readout system Patent  
[NASA-CASE-ERC-10151] c 16 N71-29131  
Dual purpose momentum wheels for spacecraft with magnetic recording  
[NASA-CASE-NPO-11481] c 21 N73-13644  
Data storage, image tube type  
[NASA-CASE-MSC-14053-1] c 60 N74-12888  
Lightning current waveform measuring system  
[NASA-CASE-KSC-11018-1] c 33 N79-10337

**DATA SYSTEMS**  
Data handling system based on source significance, storage availability and data received from the source Patent Application  
[NASA-CASE-XNP-04162-1] c 08 N70-34675  
Rate augmented digital to analog converter Patent  
[NASA-CASE-XLA-07828] c 08 N71-27057  
Method and apparatus for decoding compatible convolutional codes  
[NASA-CASE-MSC-14070-1] c 32 N74-32598

**DATA TRANSMISSION**  
Telemetry word forming unit  
[NASA-CASE-XNP-09225] c 09 N69-24333  
Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent  
[NASA-CASE-XNP-00911] c 08 N70-41961  
Data compression system with a minimum time delay unit Patent  
[NASA-CASE-XNP-08832] c 08 N71-12506  
Data compression processor Patent  
[NASA-CASE-NPO-10068] c 08 N71-19288  
Wide range data compression system Patent  
[NASA-CASE-XGS-02612] c 08 N71-19435  
Phase quadrature-plural channel data transmission system Patent  
[NASA-CASE-XAC-06302] c 08 N71-19763  
Reduced bandwidth video communication system utilizing sampling techniques Patent  
[NASA-CASE-XNP-02791] c 07 N71-23026  
Frequency shift keying apparatus Patent  
[NASA-CASE-XGS-01537] c 07 N71-23405  
Decoder system Patent  
[NASA-CASE-NPO-10118] c 07 N71-24741  
Data compression system  
[NASA-CASE-NPO-11243] c 07 N72-20154  
Multichannel telemetry system  
[NASA-CASE-NPO-11572] c 07 N73-16121  
Automated attendance accounting system  
[NASA-CASE-NPO-11456] c 08 N73-26176  
System for generating timing and control signals  
[NASA-CASE-NPO-13125-1] c 33 N75-19519  
Sampling video compression system  
[NASA-CASE-ARC-10984-1] c 32 N77-24328  
Pseudo noise code and data transmission method and apparatus  
[NASA-CASE-GSC-12017-1] c 32 N77-30308  
Multi-channel rotating optical interface for data transmission  
[NASA-CASE-NPO-14066-1] c 74 N79-34011  
System for a displaying at a remote station data generated at a central station and for powering the remote station from the central station  
[NASA-CASE-GSC-12411-1] c 33 N81-14221  
Retinally stabilized differential resolution television display  
[US-PATENT-APPL-SN-425204] c 32 N83-12308  
A single frequency multitransmitter telemetry system  
[NASA-CASE-LAR-13006-1] c 17 N83-20995  
Digital interface for bi-directional communication between a computer and a peripheral device  
[NASA-CASE-MSC-20258-1] c 60 N84-28492

**DAWSONITE**  
Synthesis of dawsonites --- for use in fire extinguishing operations  
[NASA-CASE-ARC-11326-1] c 25 N83-33977

**DEBRIS**  
Counter pumping debris excluder and separator --- gas turbine shaft seals  
[NASA-CASE-LEW-11855-1] c 07 N78-25090

**DECAY RATES**  
Solar sensor having coarse and fine sensing with matched preirradiated cells and method of selecting cells Patent  
[NASA-CASE-XLA-01584] c 14 N71-23269

**DECELERATION**  
Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-36410  
Discrete local altitude sensing device Patent  
[NASA-CASE-XMS-03792] c 14 N70-41812  
Hot air balloon deceleration and recovery system Patent  
[NASA-CASE-XLA-06824-2] c 02 N71-11037  
Zero gravity apparatus Patent  
[NASA-CASE-XMF-06515] c 14 N71-23227

**DECIMALS**  
High speed direct binary to binary coded decimal converter and scaler  
[NASA-CASE-KSC-10595] c 08 N73-12176

**DECISION MAKING**  
Method and apparatus for decoding compatible convolutional codes  
[NASA-CASE-MSC-14070-1] c 32 N74-32598

**DECODERS**  
Serial digital decoder Patent  
[NASA-CASE-NPO-10150] c 08 N71-24650  
BCD to decimal decoder Patent  
[NASA-CASE-XKS-06167] c 08 N71-24890  
Encoder/decoder system for a rapidly synchronizable binary code Patent  
[NASA-CASE-NPO-10342] c 10 N71-33407  
Compact bi-phase pulse coded modulation decoder  
[NASA-CASE-KSC-10834-1] c 33 N76-14371  
Low distortion receiver for bi-level baseband PCM waveforms  
[NASA-CASE-MSC-14557-1] c 32 N76-16249  
Three phase full wave dc motor decoder  
[NASA-CASE-GSC-11824-1] c 33 N77-26386  
Decommutator patchboard verifier  
[NASA-CASE-KSC-11065-1] c 33 N81-26359

**DECODING**  
Decoder system Patent  
[NASA-CASE-NPO-10118] c 07 N71-24741  
Versatile arithmetic unit for high speed sequential decoder  
[NASA-CASE-NPO-11371] c 08 N73-12177  
Method and apparatus for decoding compatible convolutional codes  
[NASA-CASE-MSC-14070-1] c 32 N74-32598  
Differential pulse code modulation  
[NASA-CASE-MSC-12506-1] c 32 N77-12239

**DECOMMUTATORS**  
Decommutator patchboard verifier  
[NASA-CASE-KSC-11065-1] c 33 N81-26359  
Memory-based parallel data output controller  
[NASA-CASE-GSC-12447-2] c 60 N84-28491

**DECONTAMINATION**  
Decontamination of petroleum products Patent  
[NASA-CASE-XNP-03835] c 06 N71-23499  
Helium refrigerator and method for decontaminating the refrigerator  
[NASA-CASE-NPO-10634] c 23 N72-25619  
Plasma cleaning device --- designed for high vacuum environments  
[NASA-CASE-MFS-22906-1] c 75 N78-27913

**DEEP SPACE NETWORK**  
Low phase noise digital frequency divider  
[NASA-CASE-NPO-11569] c 10 N73-26229

**DEFECTS**  
Hybrid holographic non-destructive test system  
[NASA-CASE-MFS-23114-1] c 38 N78-32447

**DEFLECTION**  
Bipropellant injector  
[NASA-CASE-XNP-09461] c 28 N72-23809  
Noncontacting method for measuring angular deflection  
[NASA-CASE-LAR-12178-1] c 74 N80-21138

**DEFLECTORS**  
Inlet deflector for jet engines Patent  
[NASA-CASE-XLE-00388] c 28 N70-34788  
Aircraft wheel spray drag alleviator Patent  
[NASA-CASE-XLA-01583] c 02 N70-36825  
Ion beam deflector Patent  
[NASA-CASE-LEW-10689-1] c 28 N71-26173  
Exhaust flow deflector --- for ducted gas flow  
[NASA-CASE-LAR-11570-1] c 34 N76-18364  
Safety shield for vacuum/pressure chamber viewing port  
[NASA-CASE-GSC-12513-1] c 31 N81-19343

**DEFOCUSING**  
Retrodirective modulator Patent  
[NASA-CASE-GSC-10062] c 14 N71-15605

**DEFORMATION**  
Arbitrarily shaped model survey system Patent  
[NASA-CASE-LAR-10098] c 32 N71-26681  
Low cycle fatigue testing machine  
[NASA-CASE-LAR-10270-1] c 32 N72-25877  
Deformable bearing seat  
[NASA-CASE-LEW-12527-1] c 37 N77-32500

**DEGASSING**  
Degassing and mixing apparatus for liquids --- potable water for spacecraft  
[NASA-CASE-MSC-18936-1] c 35 N83-29652

**DEGREES OF FREEDOM**  
Training vehicle for controlling attitude Patent  
[NASA-CASE-XMS-02977] c 11 N71-10746  
Dynamic vibration absorber Patent  
[NASA-CASE-LAR-10083-1] c 15 N71-27006  
Kinesthetic control simulator --- for pilot training  
[NASA-CASE-LAR-10276-1] c 09 N75-15662

## DEHUMIDIFICATION

Condenser - Separator  
[NASA-CASE-XLA-08645] c 15 N69-21465

## DEHYDRATED FOOD

Modification of the physical properties of freeze-dried rice  
[NASA-CASE-MSC-13540-1] c 05 N72-33096  
Self-charging metering and dispensing device for fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856

## DEICERS

Piezoelectric deicing device  
[NASA-CASE-LEW-13773-2] c 35 N84-32782

## DELAY CIRCUITS

Pulsed differential comparator circuit Patent  
[NASA-CASE-XLE-03804] c 10 N71-19471  
Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
[NASA-CASE-XGS-04224] c 10 N71-26418  
Telemetry synchronizer  
[NASA-CASE-GSC-11868-1] c 17 N76-22245  
Swept group delay measurement  
[NASA-CASE-NPO-13909-1] c 33 N78-25319  
Pseudonoise code tracking loop  
[NASA-CASE-MSC-18035-1] c 32 N81-15179

## DELAY LINES

A solid state acoustic variable time delay line Patent  
[NASA-CASE-ERC-10032] c 10 N71-25900

## DELTA MODULATION

Multifunction audio digitizer --- producing direct delta and pulse code modulation  
[NASA-CASE-MSC-13855-1] c 35 N74-17885

## DELTA WINGS

Variable-geometry winged reentry vehicle Patent  
[NASA-CASE-XLA-00241] c 31 N70-37986

## DEMAGNETIZATION

Tumbler system to provide random motion  
[NASA-CASE-XGS-02437] c 15 N69-21472

## DEMODULATION

Phase quadrature-plural channel data transmission system Patent  
[NASA-CASE-XAC-06302] c 08 N71-19763  
Facsimile video remodulation network  
[NASA-CASE-GSC-10185-1] c 07 N72-12081  
Quadrature demodulation  
[NASA-CASE-GSC-12137-1] c 33 N78-32338  
Navigation system and method  
[NASA-CASE-GSC-12508-1] c 04 N84-22546

## DEMODULATORS

Telemetry word forming unit  
[NASA-CASE-XNP-09225] c 09 N69-24333  
Frequency shift keyed demodulator Patent  
[NASA-CASE-XGS-02889] c 07 N71-11282  
Bi-carrier demodulator with modulation Patent  
[NASA-CASE-XMF-01160] c 07 N71-11298  
Demodulation system Patent  
[NASA-CASE-XAC-04030] c 10 N71-19472  
Laser calibrator Patent  
[NASA-CASE-XLA-03410] c 16 N71-25914  
Frequency modulation demodulator threshold extension device Patent  
[NASA-CASE-MSC-12165-1] c 07 N71-33696  
Full wave modulator-demodulator amplifier apparatus --- for generating rectified output signal  
[NASA-CASE-FRC-10072-1] c 33 N74-14939  
Unbalanced quadrature demodulator  
[NASA-CASE-MSC-14840-1] c 32 N77-24331  
Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267  
Self-calibrating threshold detector  
[NASA-CASE-MSC-16370-1] c 35 N81-19427  
Digital demodulator  
[NASA-CASE-LAR-12659-1] c 33 N82-26570

## DENDRITIC CRYSTALS

Method of increasing minority carrier lifetime in silicon web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888

## DENSIFICATION

Densification of porous refractory substrates --- space shuttle orbiter tiles  
[NASA-CASE-MSC-18737-1] c 24 N83-13171

## DENSITOMETERS

Apparatus having coaxial capacitor structure for measuring fluid density Patent  
[NASA-CASE-XLE-00143] c 14 N70-36618  
Densitometer Patent  
[NASA-CASE-XLE-00688] c 14 N70-41330  
Ultrasonic bone densitometer  
[NASA-CASE-MFS-20994-1] c 35 N75-12271

## DENSITY (MASS/VOLUME)

Non-toxic invert analog glass compositions of high modulus  
[NASA-CASE-HQN-10328-2] c 27 N82-29454  
Method and apparatus for minimizing convection during crystal growth from solution  
[NASA-CASE-NPO-15611-1] c 76 N84-12968

## DENSITY DISTRIBUTION

Apparatus for increasing ion engine beam density Patent  
[NASA-CASE-XLE-00519] c 28 N70-41576  
Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector --- for determining density of gas  
[NASA-CASE-ARC-10631-1] c 74 N76-20958

## DENSITY MEASUREMENT

Apparatus having coaxial capacitor structure for measuring fluid density Patent  
[NASA-CASE-XLE-00143] c 14 N70-36618  
Densitometer Patent  
[NASA-CASE-XLE-00688] c 14 N70-41330  
Determining particle density using known material Hugoniot curves  
[NASA-CASE-LAR-11059-1] c 76 N75-12810  
Selective image area control of X-ray film exposure density  
[NASA-CASE-NPO-13808-1] c 35 N78-15461  
Geodetic distance measuring apparatus  
[NASA-CASE-GSC-12609-2] c 36 N83-29681  
Device for determining frost depth and density  
[NASA-CASE-NFS-25754-1] c 35 N84-28018

## DENTISTRY

Process for the preparation of brushite crystals  
[NASA-CASE-ERC-10338] c 04 N72-33072  
Acoustic tooth cleaner  
[NASA-CASE-LAR-12471-1] c 52 N82-29862

## DEOXYGENATION

Electrocatalyst for oxygen reduction  
[NASA-CASE-HQN-10537-1] c 06 N72-10138

## DEPLOYMENT

Minimech self-deploying boom mechanism  
[NASA-CASE-GSC-10566-1] c 15 N72-18477  
Deployable solar cell array  
[NASA-CASE-NPO-10883] c 31 N72-22874  
Antenna deployment mechanism for use with a spacecraft --- extensible and retractable telescopic antenna mast  
[NASA-CASE-GSC-12331-1] c 18 N80-14183  
High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272  
Articulated joint for deployable structures  
[NASA-CASE-NPO-16038-1] c 37 N83-20157  
Sequentially deployable maneuverable tetrahedral beam  
[NASA-CASE-LAR-13008-1] c 31 N83-35178  
Synchronously deployable truss structure  
[NASA-CASE-LAR-13117-1] c 18 N84-16250

## DEPOSITION

Means and methods of depositing thin films on substrates Patent  
[NASA-CASE-XNP-00595] c 15 N70-34967  
Monitoring deposition of films  
[NASA-CASE-MFS-20675] c 26 N73-26751  
Production of pure metals  
[NASA-CASE-LEW-10906-1] c 25 N74-30502  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670  
Diamondlike flake composites  
[NASA-CASE-LEW-13837-1] c 24 N84-22695  
Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986

## DEPTH MEASUREMENT

Device for determining frost depth and density  
[NASA-CASE-NFS-25754-1] c 35 N84-28018

## DESCENT

Emergency descent device  
[NASA-CASE-MFS-23074-1] c 54 N77-21844

## DESIGN ANALYSIS

Airfoil shape for flight at subsonic speeds --- design analysis and aerodynamic characteristics of the GAW-1 airfoil  
[NASA-CASE-LAR-10585-1] c 02 N78-22154  
Snap-in compressible biomedical electrode  
[NASA-CASE-MSC-14623-1] c 52 N77-28717  
Precision manipulator heating and cooling apparatus for use in UHV systems with sample transfer capability  
[NASA-CASE-LAR-13040-1] c 35 N84-29191

## DESTRUCTIVE TESTS

Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12458-1] c 44 N83-21503

## DESULFURIZING

Coal desulfurization process  
[NASA-CASE-NPO-13937-1] c 44 N78-31527  
Continuous coal processing method  
[NASA-CASE-NPO-13758-2] c 31 N81-15154  
Coal desulfurization --- using iron pentacarbonyl  
[NASA-CASE-NPO-14272-1] c 25 N81-33246  
Crude oil desulfurization  
[NASA-CASE-NPO-14542-1] c 25 N82-23282  
Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371

Hydrodesulfurization of chlorinated coal  
[NASA-CASE-NPO-15304-1] c 25 N83-31743  
Fluidized bed desulfurization  
[NASA-CASE-NPO-15924-1] c 25 N83-36122

## DETECTION

Heated element fluid flow sensor Patent  
[NASA-CASE-MSC-12084-1] c 12 N71-17569  
Leak detector Patent  
[NASA-CASE-LAR-10323-1] c 12 N71-17573  
Metallic intrusion detector system  
[NASA-CASE-ARC-10265-1] c 10 N72-28240  
Cosmic dust or other similar outer space particles impact location detector  
[NASA-CASE-GSC-11291-1] c 25 N72-33696  
Bacteria detection instrument and method  
[NASA-CASE-GSC-11533-1] c 14 N73-13435  
Short range laser obstacle detector --- for surface vehicles using laser diode array  
[NASA-CASE-NPO-11856-1] c 36 N74-15145  
Vacuum leak detector  
[NASA-CASE-LAR-11237-1] c 35 N75-19612  
Photoelectric detection system --- manufacturing automation  
[NASA-CASE-MFS-23776-1] c 33 N82-28545  
Apparatus and process for microbial detection and enumeration  
[NASA-CASE-LAR-12709-1] c 35 N82-28604

## DETECTORS

Pressurized cell micrometeoroid detector Patent  
[NASA-CASE-XLA-00936] c 14 N71-14996  
Detector panels-micrometeoroid impact Patent  
[NASA-CASE-XLA-05906] c 31 N71-16221  
Pulse activated polarographic hydrogen detector Patent  
[NASA-CASE-XMF-06531] c 14 N71-17575  
Light position locating system Patent  
[NASA-CASE-XNP-01059] c 23 N71-21821  
Method for detecting leaks in hermetically sealed containers Patent  
[NASA-CASE-ERC-10045] c 15 N71-24910  
Precipitation detector Patent  
[NASA-CASE-XLA-02619] c 10 N71-26334  
Hydrogen fire blink detector  
[NASA-CASE-MFS-15063] c 14 N72-25412  
Combustion detector  
[NASA-CASE-LAR-10739-1] c 14 N73-16484  
Multiple pass reimaging optical system  
[NASA-CASE-ARC-10194-1] c 23 N73-20741  
Meteoroid detector  
[NASA-CASE-LAR-10483-1] c 14 N73-32327  
Deployable pressurized cell structure for a micrometeoroid detector  
[NASA-CASE-LAR-10295-1] c 35 N74-21062  
Modulated hydrogen ion flame detector  
[NASA-CASE-ARC-10322-1] c 35 N76-18403  
Coal-rock interface detector  
[NASA-CASE-MFS-23725-1] c 43 N79-31708  
Means and method for calibrating a photon detector utilizing electron-photon coincidence  
[NASA-CASE-NPO-15644-1] c 35 N84-33767

## DETERGENTS

Anti-fog composition --- for prevention of fogging on surfaces such as space helmet visors and windshields  
[NASA-CASE-MSC-13530-2] c 23 N75-14834

## DETONATION

Optically detonated explosive device  
[NASA-CASE-NPO-11743-1] c 28 N74-27425

## DETONATION WAVES

Continuous detonation reaction engine Patent  
[NASA-CASE-XMF-06926] c 28 N71-22983

## DEUTERIUM

Analysis of hydrogen-deuterium mixtures  
[NASA-CASE-NPO-11322] c 06 N72-25146  
Deuterium pass through target --- neutron emitting target  
[NASA-CASE-LEW-11866-1] c 72 N76-15860

## DIAGNOSIS

Coupling apparatus for ultrasonic medical diagnostic system  
[NASA-CASE-NPO-13935-1] c 52 N79-14751  
Medical diagnosis system and method with multispectral imaging --- depth of burns and optical density of the skin  
[NASA-CASE-NPO-14402-1] c 52 N81-27783

## DIAGRAMS

Phototransistor  
[NASA-CASE-MFS-20407] c 09 N73-19235

## DIALYSIS

Dialysis system --- using ion exchange resin membranes permeable to urea molecules  
[NASA-CASE-NPO-14101-1] c 52 N80-14687

## DIAMINES

Elastomeric silazane polymers and process for preparing the same Patent  
[NASA-CASE-XMF-04133] c 06 N71-20717

Aromatic diamine-aromatic dialdehyde high molecular weight Schiff base polymers prepared in a monofunctional Schiff base Patent  
[NASA-CASE-XMF-03074] c 06 N71-24740

Siloxane containing epoxide compounds  
[NASA-CASE-MFS-13994-2] c 06 N72-25148

Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids  
[NASA-CASE-LEW-11325-1] c 06 N73-27980

Mixed diamines for lower melting addition polyimide preparation and utilization  
[NASA-CASE-LAR-12054-1] c 27 N79-33316

Method for preparing addition type polyimide prepreps  
[NASA-CASE-LAR-12054-2] c 27 N81-14078

The 1 - (dialkoxyposphonyl)methyl -2,4- and -2,6-dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076

Fire resistant polymers based on 1-((dialkoxyposphonyl)methyl)-2,4- and -2,6-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702

**DIAMONDS**

Apparatus for making diamonds  
[NASA-CASE-MFS-20698] c 15 N72-20446

Process for making diamonds  
[NASA-CASE-MFS-20698-2] c 15 N73-19457

**DIAPHRAGMS (MECHANICS)**

Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233

Reinforcing means for diaphragms Patent  
[NASA-CASE-XNP-01962] c 32 N70-41370

Self-sealing, unbonded, rocket motor nozzle closure Patent  
[NASA-CASE-XLA-02651] c 28 N70-41967

Means for controlling rupture of shock tube diaphragms Patent  
[NASA-CASE-XAC-00731] c 11 N71-15960

Fast opening diaphragm Patent  
[NASA-CASE-XLA-03660] c 15 N71-21060

Inertia diaphragm pressure transducer Patent  
[NASA-CASE-XAC-02981] c 14 N71-21072

Convoluting device for forming convolutions and the like Patent  
[NASA-CASE-XNP-05297] c 15 N71-23811

Differential pressure control  
[NASA-CASE-MFS-14216] c 14 N73-13418

**DIATOMIC GASES**

Diatomic infrared gasdynamic laser --- for producing different wavelengths  
[NASA-CASE-ARC-10370-1] c 36 N75-31426

**DICHROISM**

Dichroic plate --- as bandpass filters  
[NASA-CASE-NPO-13506-1] c 35 N76-15435

Microwave dichroic plate  
[NASA-CASE-GSC-12171-1] c 33 N79-28416

**DICKE RADIOMETERS**

Distributed-switch Dicke radiometers  
[NASA-CASE-GSC-12219-1] c 35 N80-18359

**DIELECTRIC PROPERTIES**

Capacitive tank gaging apparatus being independent of liquid distribution  
[NASA-CASE-MFS-21629] c 14 N72-22442

Fine particulate capture device  
[NASA-CASE-LEW-11583-1] c 35 N79-17192

**DIELECTRICS**

Method for producing a solar cell having an integral protective covering  
[NASA-CASE-XGS-04531] c 03 N69-24267

Temperature sensitive capacitor device  
[NASA-CASE-XNP-09750] c 14 N69-39937

Space vehicle electrical system Patent  
[NASA-CASE-XMF-00517] c 03 N70-34157

Nose cone mounted heat resistant antenna Patent  
[NASA-CASE-XMS-04312] c 07 N71-22984

Broadband microwave waveguide window Patent  
[NASA-CASE-XNP-08880] c 09 N71-24808

Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135

Quasi-optical microwave component Patent  
[NASA-CASE-ERC-10011] c 07 N71-29065

Method of manufacturing semiconductor devices using refractory dielectrics  
[NASA-CASE-XER-08476-1] c 26 N72-17820

Screened circuit capacitors  
[NASA-CASE-LAR-10294-1] c 26 N72-28762

Low loss dichroic plate  
[NASA-CASE-NPO-13171-1] c 32 N74-11000

Electrostatic measurement system --- for contact-electrifying a dielectric  
[NASA-CASE-MFS-22129-1] c 33 N75-18477

Method and apparatus for measurement of trap density and energy distribution in dielectric films  
[NASA-CASE-NPO-13443-1] c 76 N76-20994

Preparation of dielectric coating of variable dielectric constant by plasma polymerization  
[NASA-CASE-ARC-10892-2] c 27 N79-14214

Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures  
[NASA-CASE-NPO-14254-1] c 36 N80-18372

Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986

**DIES**

Convoluting device for forming convolutions and the like Patent  
[NASA-CASE-XNP-05297] c 15 N71-23811

Extrusion die for refractory metals Patent  
[NASA-CASE-XLE-06773] c 15 N71-23817

Holding fixture for a hot stamping press  
[NASA-CASE-GSC-12619-1] c 37 N84-12491

Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274

**DIESEL ENGINES**

Apparatus and method for destructive removal of particles contained in flowing fluid  
[NASA-CASE-NPO-15426-1] c 35 N84-17555

Diesel engine catalytic combustor system --- aircraft engines  
[NASA-CASE-LEW-12995-1] c 37 N84-33808

**DIETS**

Reduction of blood serum cholesterol  
[NASA-CASE-NPO-12119-1] c 52 N75-15270

**DIFFERENTIAL AMPLIFIERS**

Temperature compensated solid state differential amplifier Patent  
[NASA-CASE-XAC-00435] c 09 N70-35440

Stepping motor control circuit Patent  
[NASA-CASE-GSC-10368-1] c 10 N71-18772

Multi-channel temperature measurement amplification system --- solar heating systems  
[NASA-CASE-MFS-23775-1] c 44 N82-16474

Measurement amplifier  
[NASA-CASE-MFS-25868-1] c 33 N84-32680

**DIFFERENTIAL INTERFEROMETRY**

Gravimeter Patent  
[NASA-CASE-XMF-05844] c 14 N71-17587

**DIFFERENTIAL PRESSURE**

Relief valve  
[NASA-CASE-XMS-05894-1] c 15 N69-21924

Apparatus for ejection of an instrument cover  
[NASA-CASE-XMF-04132] c 15 N69-27502

Differential sound level meter  
[NASA-CASE-LAR-12106-1] c 71 N78-14867

Differential optoacoustic absorption detector  
[NASA-CASE-NPO-13759-1] c 74 N78-17867

System for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations  
[NASA-CASE-FRC-11024-1] c 02 N80-28300

**DIFFERENTIATORS**

Window comparator  
[NASA-CASE-FRC-10090-1] c 33 N78-18308

**DIFFRACTION**

Optical mirror apparatus Patent  
[NASA-CASE-ERC-10001] c 23 N71-24868

**DIFFRACTION PATTERNS**

Fringe counter for interferometers Patent  
[NASA-CASE-LAR-10204] c 14 N71-27215

**DIFFRACTOMETERS**

Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer  
[NASA-CASE-XNP-05231] c 14 N73-28491

**DIFFUSE RADIATION**

Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings  
[NASA-CASE-LAR-10385-3] c 74 N78-15879

**DIFFUSERS**

Application of semiconductor diffusants to solar cells by screen printing  
[NASA-CASE-LEW-12775-1] c 44 N79-11468

Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749

**DIFFUSION**

A method for selective gold diffusion of monolithic silicon devices and/or circuits Patent application  
[NASA-CASE-ERC-10072] c 09 N70-11148

Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-10337] c 15 N71-24046

Transmitting and reflecting diffuser --- for ultraviolet light  
[NASA-CASE-LAR-10385-2] c 70 N74-13436

**DIFFUSION PUMPS**

Trap for preventing diffusion pump backstreaming  
[NASA-CASE-GSC-10518-1] c 15 N72-22489

Programmable physiological infusion  
[NASA-CASE-ARC-10447-1] c 52 N74-22771

**DIFFUSION WELDING**

Thermal compression bonding of interconnectors  
[NASA-CASE-GSC-10303] c 15 N72-22487

Bonding of reinforced Teflon to metals  
[NASA-CASE-MFS-20482] c 15 N72-22492

Enhanced diffusion welding  
[NASA-CASE-LEW-11388-1] c 15 N73-32358

Method of fluxless brazing and diffusion bonding of aluminum containing components  
[NASA-CASE-MSC-14435-1] c 37 N76-18455

Superplastically formed diffusion bonded metallic structure  
[NASA-CASE-FRC-11026-1] c 24 N82-24296

**DIGITAL COMMAND SYSTEMS**

Digitally controlled frequency synthesizer Patent  
[NASA-CASE-XGS-02317] c 09 N71-23525

System for maintaining a motor at a predetermined speed utilizing digital feedback means Patent  
[NASA-CASE-XMF-06892] c 09 N71-24805

Digital filter for reducing sampling jitter in digital control systems Patent  
[NASA-CASE-NPO-11088] c 08 N71-29034

**DIGITAL COMPUTERS**

Disk pack cleaning table Patent Application  
[NASA-CASE-LAR-10590-1] c 15 N70-26819

Binary number sorter Patent  
[NASA-CASE-NPO-10112] c 08 N71-12502

Binary sequence detector Patent  
[NASA-CASE-XNP-05415] c 08 N71-12505

Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15566

Error correcting method and apparatus Patent  
[NASA-CASE-XNP-02748] c 08 N71-22749

Serial digital decoder Patent  
[NASA-CASE-NPO-10150] c 08 N71-24650

Digital memory sense amplifying means Patent  
[NASA-CASE-XNP-01012] c 08 N71-28925

Redundant memory organization Patent  
[NASA-CASE-GSC-10584] c 10 N71-29135

High speed direct binary to binary coded decimal converter and scaler  
[NASA-CASE-KSC-10595] c 08 N73-12176

Fault tolerant clock apparatus utilizing a controlled minority of clock elements  
[NASA-CASE-MSC-12531-1] c 35 N75-30504

Two-dimensional radiant energy array computers and computing devices  
[NASA-CASE-GSC-11839-1] c 60 N77-14751

Memory device for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-2] c 60 N78-10709

Environmental fog/rain visual display system for aircraft simulators  
[NASA-CASE-ARC-11158-1] c 09 N82-24212

**DIGITAL DATA**

Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent  
[NASA-CASE-XNP-00911] c 08 N70-41961

Tape guidance system and apparatus for the provision thereof Patent  
[NASA-CASE-XNP-09453] c 08 N71-19420

Digital telemetry system Patent  
[NASA-CASE-XGS-01812] c 07 N71-23001

Transient augmentation circuit for pulse amplifiers Patent  
[NASA-CASE-XNP-01068] c 10 N71-28739

Transition tracking bit synchronization system  
[NASA-CASE-NPO-10844] c 07 N72-20140

Digital control and information system  
[NASA-CASE-NPO-11016] c 08 N72-31226

Digital plus analog output encoder  
[NASA-CASE-GSC-12115-1] c 62 N76-31946

Digital data reformatter/deserializer  
[NASA-CASE-NPO-13676-1] c 60 N79-20751

Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733

Memory-based parallel data output controller  
[NASA-CASE-GSC-12447-2] c 60 N84-28491

**DIGITAL FILTERS**

Signal detection and tracking apparatus Patent  
[NASA-CASE-XGS-03502] c 10 N71-20852

Digital filter for reducing sampling jitter in digital control systems Patent  
[NASA-CASE-NPO-11088] c 08 N71-29034

Counting digital filters  
[NASA-CASE-NPO-11821-1] c 08 N73-26175

Filtering device --- removing electromagnetic noise from voice communication signals  
[NASA-CASE-MFS-22729-1] c 32 N76-21366

**DIGITAL INTEGRATORS**

Digital automatic gain amplifier  
[NASA-CASE-KSC-11008-1] c 33 N79-22373

**DIGITAL RADAR SYSTEMS**

Real-time multiple-lock synthetic aperture radar processor for spacecraft applications  
[NASA-CASE-NPO-14054-1] c 32 N82-12297

**DIGITAL SPACECRAFT TELEVISION**

Digital television camera control system Patent  
[NASA-CASE-XNP-01472] c 14 N70-41807

## DIGITAL SYSTEMS

- Light sensitive digital aspect sensor Patent  
[NASA-CASE-XGS-00359] c 14 N70-34158
- Full binary adder Patent  
[NASA-CASE-XGS-00689] c 08 N70-34787
- Digital telemetry system Patent  
[NASA-CASE-XGS-01812] c 07 N71-23001
- Drive circuit utilizing two cores Patent  
[NASA-CASE-XNP-01318] c 10 N71-23033
- Noninterruptible digital counting system Patent  
[NASA-CASE-XNP-09759] c 08 N71-24891
- Digital memory in which the driving of each word location is controlled by a switch core Patent  
[NASA-CASE-XNP-01466] c 10 N71-26434
- Digital quasi-exponential function generator  
[NASA-CASE-NPO-11130] c 08 N72-20176
- Digital function generator  
[NASA-CASE-NPO-11104] c 08 N72-22185
- Digital video display system using cathode ray tube  
[NASA-CASE-NPO-11342] c 09 N72-25248
- Digital slope threshold data compressor  
[NASA-CASE-NPO-11630] c 08 N72-33172
- Data processor with conditionally supplied clock signals  
[NASA-CASE-GSC-10975-1] c 08 N73-13187
- Low phase noise digital frequency divider  
[NASA-CASE-NPO-11569] c 10 N73-26229
- Pseudonoise (PN) synchronization of data system with derivation of clock frequency from received signal for clocking receiver PN generator  
[NASA-CASE-XNP-03623] c 09 N73-28084
- Digital second-order phase-locked loop  
[NASA-CASE-NPO-11905-1] c 33 N74-12887
- Digital controller for a Baum folding machine --- providing automatic counting and machine shutoff  
[NASA-CASE-LAR-10688-1] c 37 N74-21056
- Digital transmitter for data bus communications system  
[NASA-CASE-MSC-14558-1] c 32 N75-21486
- Automatic character skew and spacing checking network --- of digital tape drive systems  
[NASA-CASE-GSC-11925-1] c 33 N76-18353
- Anti-multipath digital signal detector  
[NASA-CASE-LAR-11827-1] c 32 N77-10392
- Multiple rate digital command detection system with range clean-up capability  
[NASA-CASE-NPO-13753-1] c 32 N77-20289
- Open loop digital frequency multiplier  
[NASA-CASE-MSC-12709-1] c 33 N77-24375
- Bit error rate measurement above and below bit rate tracking threshold  
[NASA-CASE-MSC-12743-1] c 32 N79-10263
- Apparatus and method for stabilized phase detection for binary signal tracking loops  
[NASA-CASE-MSC-16461-1] c 33 N79-11313
- Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267
- Memory-based frame synchronizer --- for digital communication systems  
[NASA-CASE-GSC-12430-1] c 60 N82-16747
- Digital demodulator  
[NASA-CASE-LAR-12659-1] c 33 N82-26570
- Random digital encryption secure communication system  
[NASA-CASE-MSC-16462-1] c 32 N82-31583
- Error correction method and apparatus for electronic timepieces  
[NASA-CASE-LAR-12654-1] c 33 N83-36357
- DIGITAL TECHNIQUES**
- Digital frequency discriminator Patent  
[NASA-CASE-MFS-14322] c 08 N71-18692
- Exclusive-Or digital logic module Patent  
[NASA-CASE-XLA-07732] c 08 N71-18751
- Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent  
[NASA-CASE-XNP-06957] c 14 N71-21088
- Digital cardiometer system Patent  
[NASA-CASE-XMS-02399] c 05 N71-22896
- Digital synchronizer Patent  
[NASA-CASE-NPO-10851] c 07 N71-24613
- Fringe counter for interferometers Patent  
[NASA-CASE-LAR-10204] c 14 N71-27215
- Rate data encoder  
[NASA-CASE-LAR-10128-1] c 08 N73-20217
- Digital communication system  
[NASA-CASE-MSC-13912-1] c 32 N74-30524
- Digital phase-locked loop  
[NASA-CASE-GSC-11623-1] c 33 N75-25040
- Digital numerically controlled oscillator  
[NASA-CASE-MSC-16747-1] c 33 N81-17349
- Random digital encryption secure communication system  
[NASA-CASE-MSC-16462-1] c 32 N82-31583
- Nanosequencer digital logic controller  
[NASA-CASE-NPO-16116-1] c 60 N84-25306

- Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter  
[NASA-CASE-NPO-15519-1] c 32 N84-34651
- DIGITAL TO ANALOG CONVERTERS**
- Rate augmented digital to analog converter Patent  
[NASA-CASE-XLA-07828] c 08 N71-27057
- Buffered analog converter  
[NASA-CASE-KSC-10397] c 08 N72-25206
- Digital to analog conversion apparatus  
[NASA-CASE-MSC-12458-1] c 08 N73-32081
- Smoothing filter for digital to analog conversion  
[NASA-CASE-FRC-11025-1] c 33 N82-24417
- Digital control of diode laser for atmospheric spectroscopy  
[NASA-CASE-NPO-16000-1] c 36 N83-24842
- Memory-based parallel data output controller  
[NASA-CASE-GSC-12447-2] c 60 N84-28491
- DIGITAL TRANSDUCERS**
- Digital to analog conversion apparatus  
[NASA-CASE-MSC-12458-1] c 08 N73-32081
- Angle detector  
[NASA-CASE-ARC-11036-1] c 35 N78-32395
- DIISOCYANATES**
- Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099
- Polyurethanes from fluoroalkyl propyleneglycol polyethers  
[NASA-CASE-MFS-10508] c 06 N73-30100
- Fluorine containing polyurethane  
[NASA-CASE-MFS-10509] c 06 N73-30103
- DIMENSIONAL MEASUREMENT**
- Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875
- DIMENSIONS**
- Projection system for display of parallax and perspective  
[NASA-CASE-MFS-23194-1] c 35 N78-17357
- DIODES**
- Diode and protection fuse unit Patent  
[NASA-CASE-XKS-03381] c 09 N71-22796
- Protection of serially connected solar cells against open circuits by the use of shunting diode Patent  
[NASA-CASE-XLE-04535] c 03 N71-23354
- Shielded cathode mode bulk effect devices  
[NASA-CASE-ERC-10119] c 26 N72-21701
- Fast response low power drain logic circuits  
[NASA-CASE-GSC-10878-1] c 10 N72-22236
- Method and apparatus for detecting surface ions on silicon diodes and transistors  
[NASA-CASE-ERC-10325] c 15 N72-25457
- Temperature compensated light source using a light emitting diode  
[NASA-CASE-ARC-10467-1] c 09 N73-14214
- Wide temperature range electronic device with lead attachment  
[NASA-CASE-ERC-10224-2] c 09 N73-27150
- High isolation RF signal selection switches  
[NASA-CASE-NPO-13081-1] c 33 N74-22814
- Logarithmic circuit with wide dynamic range  
[NASA-CASE-GSC-12145-1] c 33 N78-32339
- Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter  
[NASA-CASE-LEW-12791-1] c 33 N78-32341
- Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode  
[NASA-CASE-GSC-12168-1] c 31 N79-17029
- Arrangement for damping the resonance in a laser diode  
[NASA-CASE-NPO-15980-1] c 36 N82-28618
- DIPHENYL COMPOUNDS**
- Amine terminated bisaspartimides, process for preparation thereof, and polymers thereof  
[NASA-CASE-ARC-11421-1] c 27 N84-16340
- DIPLOLE ANTENNAS**
- Circularly polarized antenna  
[NASA-CASE-ERC-10214] c 09 N72-31235
- Cavity-backed, micro-strip dipole antenna array  
[NASA-CASE-MSC-18606-1] c 32 N82-11336
- DIRECT CURRENT**
- Regulated dc to dc converter  
[NASA-CASE-XGS-03429] c 03 N69-21330
- Bus voltage compensation circuit for controlling direct current motor  
[NASA-CASE-XMS-04215-1] c 09 N69-39987
- Thermionic diode switch Patent  
[NASA-CASE-NPO-10404] c 03 N71-12255
- A dc-coupled noninverting one-shot Patent  
[NASA-CASE-XNP-09450] c 10 N71-18723
- Stepping motor control circuit Patent  
[NASA-CASE-GSC-10366-1] c 10 N71-18772
- Frequency control network for a current feedback oscillator Patent  
[NASA-CASE-GSC-10041-1] c 10 N71-19418

- Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent  
[NASA-CASE-XLA-03103] c 25 N71-21693
- Positive dc to positive dc converter Patent  
[NASA-CASE-XMF-14301] c 09 N71-23188
- Positive dc to negative dc converter Patent  
[NASA-CASE-XMF-08217] c 03 N71-23239
- Blood pressure measuring system for separating and separately recording dc signal and an ac signal Patent  
[NASA-CASE-XMS-06061] c 05 N71-23317
- Radio frequency coaxial high pass filter Patent  
[NASA-CASE-XGS-01418] c 09 N71-23573
- Brushless direct current tachometer Patent  
[NASA-CASE-MFS-20385] c 09 N71-24904
- Inverter with means for base current shaping for sweeping charge carriers from base region Patent  
[NASA-CASE-XGS-06226] c 10 N71-25950
- Dual polarity full wave dc motor drive Patent  
[NASA-CASE-XNP-07477] c 09 N71-26092
- A dc motor speed control system Patent  
[NASA-CASE-MFS-14610] c 09 N71-28886
- Cyclic switch Patent  
[NASA-CASE-LEW-10155-1] c 09 N71-29035
- Load-insensitive electrical device  
[NASA-CASE-XER-11046] c 09 N72-22203
- A dc to ac to dc converter having transistor synchronous rectifiers  
[NASA-CASE-GSC-11126-1] c 09 N72-25253
- Electric motive machine including magnetic bearing  
[NASA-CASE-XGS-07805] c 15 N72-33476
- Powerplexer  
[NASA-CASE-MSC-12396-1] c 03 N73-31988
- Bio-isolated dc operational amplifier --- for bioelectric measurements  
[NASA-CASE-ARC-10596-1] c 33 N74-21851
- Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage  
[NASA-CASE-XER-11046-2] c 33 N74-22864
- Differential pulse code modulation  
[NASA-CASE-MSC-12506-1] c 32 N77-12239
- Three phase full wave dc motor decoder  
[NASA-CASE-GSC-11824-1] c 33 N77-26386
- Time domain phase measuring apparatus  
[NASA-CASE-GSC-12228-1] c 33 N79-10338
- Direct current transformer  
[NASA-CASE-MFS-23659-1] c 33 N79-17133
- Elimination of current spikes in buck power converters  
[NASA-CASE-NPO-14505-1] c 33 N81-19393
- Controller for computer control of brushless dc motors --- automobile engines  
[NASA-CASE-NPO-13970-1] c 33 N81-20352
- Direct current ballast circuit for metal halide lamp  
[NASA-CASE-MSC-18407-1] c 33 N82-24427
- DIRECT LIFT CONTROLS**
- Velocity vector control system augmented with direct lift control  
[NASA-CASE-LAR-12268-1] c 08 N81-24106
- DIRECT POWER GENERATORS**
- Energy conversion apparatus Patent  
[NASA-CASE-XLE-00212] c 03 N70-34134
- Thermal pump-compressor for space use Patent  
[NASA-CASE-XLA-00377] c 33 N71-17610
- Positive dc to negative dc converter Patent  
[NASA-CASE-XMF-08217] c 03 N71-23239
- Unsaturating saturable core transformer Patent  
[NASA-CASE-ERC-10125] c 09 N71-24893
- Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage  
[NASA-CASE-XER-11046-2] c 33 N74-22864
- Bi-directional control system for energy flow in a solar powered flywheel  
[NASA-CASE-MFS-25978-1] c 44 N84-32913
- DIRECTIONAL ANTENNAS**
- Mechanical coordinate converter Patent  
[NASA-CASE-XNP-00614] c 14 N70-36907
- Weatherproof helix antenna Patent  
[NASA-CASE-XKS-08485] c 07 N71-19493
- Tracking antenna system Patent  
[NASA-CASE-GSC-10553-1] c 07 N71-19854
- Reversible motion drive system Patent  
[NASA-CASE-NPO-10173] c 15 N71-24696
- Variable beamwidth antenna --- with multiple beam, variable feed system  
[NASA-CASE-GSC-11862-1] c 32 N76-18295
- Suspension system for a wheel rolling on a flat track --- bearings for directional antennas  
[NASA-CASE-NPO-14395-1] c 37 N82-21587
- DIRECTIONAL CONTROL**
- Gimbaled, partially submerged rocket nozzle Patent  
[NASA-CASE-XMF-01544] c 28 N70-34162
- Omnidirectional wheel  
[NASA-CASE-MFS-21309-1] c 37 N74-18125

Velocity vector control system augmented with direct lift control  
[NASA-CASE-LAR-12268-1] c 08 N81-24106

Magnetic heading reference  
[NASA-CASE-LAR-12638-1] c 04 N84-14132

**DIRECTIONAL SOLIDIFICATION (CRYSTALS)**  
Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown  
[NASA-CASE-MFS-23816-1] c 26 N80-23419

Reusable thermal cycling clamp — holders for directional solidification experiments  
[NASA-CASE-LAR-12868-1] c 27 N82-18390

High gradient directional solidification furnace — for space processing  
[NASA-CASE-MFS-25963-1] c 35 N84-16531

**DIRECTIONAL STABILITY**  
Nose gear steering system for vehicle with main skids Patent  
[NASA-CASE-XLA-01804] c 02 N70-34160

System for imposing directional stability on a rocket-propelled vehicle  
[NASA-CASE-MFS-21311-1] c 20 N76-21275

**DIRECTIVITY**  
Multiprism collimator  
[NASA-CASE-GSC-12608-1] c 74 N83-10900

**DISCHARGE**  
Discharge cell for optogalvanic spectroscopy having orthogonal relationship between the probe laser and discharge axis  
[NASA-CASE-NPO-16271-1] c 36 N84-15537

**DISCONNECT DEVICES**  
Gas actuated bolt disconnect Patent  
[NASA-CASE-XLA-00326] c 03 N70-34667

Umbilical disconnect Patent  
[NASA-CASE-XLA-00711] c 03 N71-12258

Remote controlled tubular disconnect Patent  
[NASA-CASE-XLA-01396] c 03 N71-12259

Quick release connector Patent  
[NASA-CASE-XLA-01141] c 15 N71-13789

Split nut separation system Patent  
[NASA-CASE-NPO-06914] c 15 N71-21489

Separation simulator Patent  
[NASA-CASE-XKS-04631] c 10 N71-23663

Duct coupling for single-handed operation Patent  
[NASA-CASE-MFS-20395] c 15 N71-24903

Breakaway connector  
[NASA-CASE-NPO-11140] c 15 N72-17455

Torsional disconnect unit  
[NASA-CASE-NPO-10704] c 15 N72-20445

Frangible link  
[NASA-CASE-MSC-11849-1] c 15 N72-22488

Quick disconnect coupling  
[NASA-CASE-NPO-11202] c 15 N72-25450

Quick disconnect filter coupling  
[NASA-CASE-MFS-22323-1] c 37 N76-14463

Positive isolation disconnect  
[NASA-CASE-MSC-16043-1] c 37 N79-11402

Slide release mechanism — for the external tank  
[NASA-CASE-MSC-20080-1] c 37 N82-31688

Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609

**DISCONTINUITY**  
Strain coupled servo control system Patent  
[NASA-CASE-XLA-08530] c 32 N71-25360

**DISCRIMINATORS**  
Phase detector assembly Patent  
[NASA-CASE-XMF-00701] c 09 N70-40272

Difference circuit Patent  
[NASA-CASE-NPO-08274] c 10 N71-13537

Digital frequency discriminator Patent  
[NASA-CASE-MFS-14322] c 08 N71-18692

Comparator for the comparison of two binary numbers Patent  
[NASA-CASE-XNP-04819] c 08 N71-23295

Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-3] c 33 N75-19520

Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-2] c 33 N75-25041

Discriminator aided phase lock acquisition for suppressed carrier signals  
[NASA-CASE-NPO-14311-1] c 33 N82-29539

**DISPENSERS**  
Liquid aerosol dispenser  
[NASA-CASE-MFS-20829] c 12 N72-21310

Potable water dispenser  
[NASA-CASE-MFS-21115-1] c 54 N74-12779

Lyophilized spore dispenser  
[NASA-CASE-LAR-10544-1] c 37 N74-13178

Metering gun for dispensing precisely measured charges of fluid  
[NASA-CASE-MFS-21163-1] c 54 N74-17853

Automatic fluid dispenser  
[NASA-CASE-ARC-10820-1] c 35 N78-19466

Self-charging metering and dispensing device for fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856

**DISPERSING**  
Shock tube powder dispersing apparatus Patent  
[NASA-CASE-XLE-04946] c 17 N71-24911

Powder fed sheared dispersal particle generator  
[NASA-CASE-LAR-12785-1] c 37 N84-16561

**DISPERSIONS**  
Preparation of alkali metal dispersions  
[NASA-CASE-XNP-08876] c 17 N73-28573

**DISPLACEMENT**  
Bimetallic fluid displacement apparatus — for stirring and heating stored gases and liquids  
[NASA-CASE-ARC-10441-1] c 35 N74-15126

**DISPLACEMENT MEASUREMENT**  
Null-type vacuum microbalance Patent  
[NASA-CASE-XAC-00472] c 15 N70-40180

Self-calibrating displacement transducer Patent  
[NASA-CASE-XLA-00781] c 09 N71-22999

Angular displacement indicating gas bearing support system Patent  
[NASA-CASE-XLA-09346] c 15 N71-28740

Apparatus for remote measurement of displacement of marks on a specimen undergoing a tensile test  
[NASA-CASE-NPO-10778] c 14 N72-11364

Miniature muscle displacement transducer  
[NASA-CASE-NPO-13519-1] c 33 N76-19338

Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072

**DISPLAY DEVICES**  
Integrated time shared instrumentation display Patent  
[NASA-CASE-XLA-01952] c 08 N71-12507

Energy management system for glider type vehicle Patent  
[NASA-CASE-XFR-00756] c 02 N71-13421

Fluidic-thermochromic display device Patent  
[NASA-CASE-ERC-10031] c 12 N71-18603

Display for binary characters Patent  
[NASA-CASE-XGS-04987] c 08 N71-20571

Optical projector system Patent  
[NASA-CASE-XNP-03853] c 23 N71-21882

Optical monitor panel Patent  
[NASA-CASE-XKS-03509] c 14 N71-23175

BCD to decimal decoder Patent  
[NASA-CASE-XKS-06167] c 08 N71-24890

Noninterruptable digital counting system Patent  
[NASA-CASE-XNP-09759] c 08 N71-24891

Analog signal integration and reconstruction system Patent  
[NASA-CASE-NPO-10344] c 10 N71-26544

Plasma fluidic hybrid display Patent  
[NASA-CASE-ERC-10100] c 09 N71-33519

System for quantizing graphic displays  
[NASA-CASE-NPO-10745] c 08 N72-22164

Digital video display system using cathode ray tube  
[NASA-CASE-NPO-11342] c 09 N72-25248

Scientific experiment flexible mount  
[NASA-CASE-MSC-12372-1] c 31 N72-25842

Display system  
[NASA-CASE-ERC-10350] c 14 N73-20474

Transparent switchboard  
[NASA-CASE-MSC-13748-1] c 10 N73-32143

Recorder/processor apparatus — for optical data processing  
[NASA-CASE-GSC-11553-1] c 35 N74-15831

Rotating raster generator  
[NASA-CASE-FRC-10071-1] c 32 N74-20813

G-load measuring and indicator apparatus — for aircraft  
[NASA-CASE-ARC-10806] c 06 N74-27872

X-Y alphanumeric character generator for oscilloscopes  
[NASA-CASE-GSC-11582-1] c 33 N75-19517

Binocular device for displaying numerical information in field of view  
[NASA-CASE-LAR-11782-1] c 74 N77-20882

Particle parameter analyzing system — x-y plotter circuits and display  
[NASA-CASE-XLE-06094] c 33 N78-17293

Projection system for display of parallax and perspective  
[NASA-CASE-MFS-23194-1] c 35 N78-17357

Full color hybrid display for aircraft simulators — landing aids  
[NASA-CASE-ARC-10903-1] c 09 N78-18083

Chromatically corrected virtual image display — lens design for flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N79-14892

Miniature implantable ultrasonic echosonometer  
[NASA-CASE-ARC-11035-1] c 52 N79-18580

System and method for obtaining wide screen Schlieren photographs  
[NASA-CASE-NPO-14174-1] c 74 N79-20856

Chromatically corrected virtual image visual display — reducing eye strain in flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N80-27185

System for a displaying at a remote station data generated at a central station and for powering the remote station from the central station  
[NASA-CASE-GSC-12411-1] c 33 N81-14221

System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075

Environmental fog/rain visual display system for aircraft simulators  
[NASA-CASE-ARC-11158-1] c 09 N82-24212

Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996

Real-time 3-D X-ray and gamma-ray viewer  
[NASA-CASE-GSC-12640-1] c 74 N84-11920

Simulator scene display evaluation  
[NASA-CASE-ARC-11504-1] c 09 N84-16221

Aircraft control position indicator  
[NASA-CASE-LAR-12984-1] c 06 N84-20522

Aircraft lifter  
[NASA-CASE-LAR-12518-1] c 06 N84-32383

**DISSIPATION**  
Voltage regulator with plural parallel power source sections Patent  
[NASA-CASE-GSC-10891-1] c 10 N71-26626

Warm fog dissipation using large volume water sprays  
[NASA-CASE-MFS-25962-1] c 09 N84-32398

**DISSOCIATION**  
Solar hydrogen generator  
[NASA-CASE-LAR-11361-1] c 44 N77-22607

**DISSOLVING**  
Zero gravity liquid mixer  
[NASA-CASE-LAR-10195-1] c 15 N73-19458

**DISTANCE**  
Optical distance measuring instrument  
[US-PATENT-APPL-SN-406820] c 74 N83-13982

**DISTANCE MEASURING EQUIPMENT**  
Binary coded sequential acquisition ranging system  
[NASA-CASE-NPO-11184] c 08 N72-25209

Determining distance to lightning strokes from a single station  
[NASA-CASE-KSC-10698] c 07 N73-20175

Terminal guidance sensor system — space shuttle coupling to orbiting satellites  
[NASA-CASE-NPO-14521-1] c 37 N81-27519

Geodetic distance measuring apparatus  
[NASA-CASE-GSC-12609-2] c 36 N83-29681

Rotary target V-block  
[NASA-CASE-LAR-12007-3] c 35 N84-16523

**DISTILLATION**  
Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811

**DISTILLATION EQUIPMENT**  
Compact solar still Patent  
[NASA-CASE-XMS-04533] c 15 N71-23086

Method and apparatus for distillation of liquids Patent  
[NASA-CASE-XNP-08124] c 15 N71-27184

Method for distillation of liquids  
[NASA-CASE-XNP-08124-2] c 06 N73-13129

**DISTRIBUTED AMPLIFIERS**  
Cascaded complementary pair broadband transistor amplifiers Patent  
[NASA-CASE-NPO-10003] c 10 N71-26415

**DISTRIBUTED PROCESSING**  
Distributed multipoint memory architecture  
[NASA-CASE-NPO-15342-1] c 60 N83-32342

**DISTRIBUTION (PROPERTY)**  
Method and apparatus for mapping the distribution of chemical elements in an extended medium  
[NASA-CASE-GSC-12808-1] c 45 N83-20446

Thermionic energy converters  
[NASA-CASE-LEW-12443-1] c 44 N83-32175

**DISTRIBUTORS**  
High voltage distributor  
[NASA-CASE-GSC-11849-1] c 33 N76-16332

**DIVERGENT NOZZLES**  
Jet exhaust noise suppressor  
[NASA-CASE-LEW-11286-1] c 07 N74-27490

**DIVERSERS**  
Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N79-33468

**DIVIDERS**  
A synchronous binary array divider  
[NASA-CASE-ERC-10180-1] c 60 N74-20836

**DOCUMENT STORAGE**  
File card marker Patent  
[NASA-CASE-XLA-02705] c 08 N71-15908

**DOORS**  
Emergency escape system Patent  
[NASA-CASE-MSC-12086-1] c 05 N71-12345

CAM controlled retractable door latch  
[NASA-CASE-MSC-20304-1] c 37 N82-31690

## DOPED CRYSTALS

FET charge sensor and voltage probe  
[NASA-CASE-NPO-16045-1] c 76 N84-33211

## DOPPLER EFFECT

Doppler frequency spread correction device for multiplex transmissions  
[NASA-CASE-XGS-02749] c 07 N69-39978  
Laser Doppler system for measuring three dimensional vector velocity Patent  
[NASA-CASE-MFS-20386] c 21 N71-19212  
Doppler compensation by shifting transmitted object frequency within limits  
[NASA-CASE-GSC-10087-4] c 07 N73-20174  
Doppler shift system --- system for measuring velocities of radiating particles  
[NASA-CASE-HQN-10740-1] c 72 N74-19310  
Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510  
An electro-optical Doppler tracker means and method for optical correlation of synthetic aperture radar data  
[NASA-CASE-NPO-14998-1] c 33 N81-15194  
Method and apparatus for Delta K synthetic aperture radar measurement of ocean current  
[NASA-CASE-NPO-15704-1] c 32 N82-28502  
Servomechanism for Doppler shift compensation in optical correlator for synthetic aperture radar  
[NASA-CASE-NPO-14998-1] c 32 N83-18975

## DOPPLER RADAR

Cooperative Doppler radar system Patent  
[NASA-CASE-LAR-10403] c 21 N71-11766  
Doppler radar having phase modulation of both transmitted and reflected return signals  
[NASA-CASE-MSC-18675-1] c 32 N84-22820

## DOSIMETERS

Dosimeter for high levels of absorbed radiation Patent  
[NASA-CASE-XLA-03645] c 14 N71-20430  
Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311

## DRAG CHUTES

Flexible wing deployment device Patent  
[NASA-CASE-XLA-01220] c 02 N70-41863  
Lightweight, variable solidity knitted parachute fabric --- for aerodynamic decelerators  
[NASA-CASE-LAR-10776-1] c 02 N74-10034

## DRAG MEASUREMENT

Air frame drag balance Patent  
[NASA-CASE-XLA-00113] c 14 N70-33386  
Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-00755] c 01 N71-13410  
Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-05828] c 01 N71-13411  
Impact energy absorber Patent  
[NASA-CASE-XLA-01530] c 14 N71-23092  
System for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations  
[NASA-CASE-FRC-11024-1] c 02 N80-28300  
Skin friction measuring device for aircraft  
[NASA-CASE-FRC-11029-1] c 06 N81-17057

## DRAG REDUCTION

Propeller blade loading control Patent  
[NASA-CASE-XAC-00139] c 02 N70-34856  
Aircraft wheel spray drag alleviator Patent  
[NASA-CASE-XLA-01583] c 02 N70-36825  
Improved method for driving two-phase turbines with enhanced efficiency  
[NASA-CASE-NPO-15037-1] c 37 N80-26660  
Leading edge vortex flaps for drag reduction --- during subsonic flight  
[NASA-CASE-LAR-12750-1] c 02 N81-19016  
Low-drag ground vehicle particularly suited for use in safely transporting livestock  
[NASA-CASE-FRC-11058-1] c 85 N82-33288  
Propulsion apparatus and method using boil-off gas from a cryogenic liquid --- controlling spacecraft attitude and drag  
[NASA-CASE-MFS-25946-1] c 20 N84-15183

## DRIFT (INSTRUMENTATION)

Amplifier drift tester  
[NASA-CASE-XMS-05562-1] c 09 N69-39986  
Radiation direction detector including means for compensating for photocell aging Patent  
[NASA-CASE-XLA-00183] c 14 N70-40239  
Failure detection and control means for improved drift performance of a gimbal platform system  
[NASA-CASE-MFS-23551-1] c 04 N76-26175

## DRILL BITS

Sample collecting impact bit Patent  
[NASA-CASE-XNP-01412] c 15 N70-42034  
Hole cutter --- drill bits and rotating shaft  
[NASA-CASE-MFS-22649-1] c 37 N75-25186

## DRILLING

Method for milling and drilling glass  
[NASA-CASE-GSC-12636-1] c 31 N83-27058

## DRILLS

Rock drill for recovering samples  
[NASA-CASE-XNP-07478] c 14 N69-21923  
Soil penetrometer  
[NASA-CASE-XNP-05530] c 14 N73-32321

## DRIVES

Transistor drive regulator Patent  
[NASA-CASE-LEW-10233] c 10 N71-27126

## DROP TOWERS

Method of forming frozen spheres in a force-free drop tower  
[NASA-CASE-NPO-14845-1] c 27 N82-28442  
Sphere forming method and apparatus  
[NASA-CASE-NPO-15070-1] c 31 N83-35176  
Tower evaporator  
[NASA-CASE-NPO-15609-1] c 25 N83-36119

## DROPS (LIQUIDS)

Droplet monitoring probe  
[NASA-CASE-NPO-10985] c 14 N73-20478  
Tower evaporator  
[NASA-CASE-NPO-15609-1] c 25 N83-36119

## DRUGS

Automated analysis of oxidative metabolites  
[NASA-CASE-ARC-10469-1] c 25 N75-12086

## DRYING

Drying apparatus for photographic sheet material  
[NASA-CASE-GSC-11074-1] c 14 N73-28489  
Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-1] c 35 N82-25484

## DRYING APPARATUS

Gas purged dry box glove Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080

## DUCTED FANS

Cam-operated pitch-change apparatus  
[NASA-CASE-LEW-13050-1] c 07 N79-14095

## DUCTILITY

Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-19540

## DUCTS

Duct coupling for single-handed operation Patent  
[NASA-CASE-MFS-20395] c 15 N71-24903  
Externally supported internally stabilized flexible duct joint  
[NASA-CASE-MFS-19194-1] c 37 N76-14460  
Apparatus for supplying conditioned air at a substantially constant temperature and humidity  
[NASA-CASE-GSC-12191-1] c 31 N80-32583

## DURABILITY

Belt for transmitting power from a cogged driving member to a cogged driven member  
[NASA-CASE-GSC-12289-1] c 37 N80-32717

## DUST COLLECTORS

Disk pack cleaning table Patent Application  
[NASA-CASE-LAR-10590-1] c 15 N70-26819

## DYE LASERS

Infrared tunable laser  
[NASA-CASE-ARC-10463-1] c 09 N73-32111  
Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp  
[NASA-CASE-LAR-11341-1] c 36 N75-19655

## DYES

Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170  
Method for retarding dye fading during archival storage of developed color photographic film --- inert atmosphere  
[NASA-CASE-MFS-23250-1] c 35 N82-11432

## DYNAMIC CHARACTERISTICS

Dynamic sensor Patent  
[NASA-CASE-XAC-02877] c 14 N70-41681  
Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397  
Device and method for frictionally testing materials for ignitability  
[NASA-CASE-MSC-20622-1] c 14 N84-22596  
Apparatus for and method of compensating dynamic unbalance  
[NASA-CASE-GSC-12550-1] c 37 N84-28082

## DYNAMIC CONTROL

Motion restraining device  
[NASA-CASE-NPO-13619-1] c 37 N78-16369  
System for controlled acoustic rotation of objects  
[NASA-CASE-NPO-15522-1] c 71 N83-32516

## DYNAMIC LOADS

Multilegged support system Patent  
[NASA-CASE-XLA-01326] c 11 N71-21481  
Tension measurement device Patent  
[NASA-CASE-XMS-04545] c 15 N71-22878  
Impact monitoring apparatus  
[NASA-CASE-MSC-15626-1] c 14 N72-25411

## DYNAMIC MODULUS OF ELASTICITY

Apparatus for positioning and loading a test specimen Patent  
[NASA-CASE-XLE-01300] c 15 N70-41993

## DYNAMIC RESPONSE

Impact simulator Patent  
[NASA-CASE-XLA-00493] c 11 N70-34786  
Instrument for measuring the dynamic behavior of liquids Patent  
[NASA-CASE-XLA-05541] c 12 N71-26387  
Response analyzers for sensors Patent  
[NASA-CASE-MFS-11204] c 14 N71-29134  
Cam-operated pitch-change apparatus  
[NASA-CASE-LEW-13050-1] c 07 N79-14095

## DYNAMIC STRUCTURAL ANALYSIS

Method and apparatus for measuring the damping characteristics of a structure  
[NASA-CASE-ARC-10154-1] c 14 N72-22440

## DYNAMIC TESTS

Support apparatus for dynamic testing Patent  
[NASA-CASE-XMF-01772] c 11 N70-41677  
Hydraulic support for dynamic testing Patent  
[NASA-CASE-XMF-03248] c 11 N71-10604

## DYNAMOMETERS

Thrust dynamometer Patent  
[NASA-CASE-XLE-00702] c 14 N70-40203  
Thrust dynamometer Patent  
[NASA-CASE-XLE-05260] c 14 N71-20429

## E

## EAR

Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent  
[NASA-CASE-XAC-05422] c 04 N71-23185

## EARTH ATMOSPHERE

Ablation sensor Patent  
[NASA-CASE-XLA-01791] c 14 N71-22991

## EARTH CRUST

Seismic vibration source  
[NASA-CASE-NPO-14112-1] c 46 N79-22679

## EARTH OBSERVATIONS (FROM SPACE)

Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541

## EARTH ORBITS

High temperature furnace for melting materials in space  
[NASA-CASE-MFS-20710] c 11 N72-23215  
A method of delivering a vehicle to earth orbit and returning the reusable portion thereof to earth  
[NASA-CASE-MSC-12391] c 30 N73-12884

## EARTH TERMINALS

Method for terminal position determination in Earth terminal-to-satellite burst acquisition and synchronization  
[NASA-CASE-LEW-13893-1] c 32 N83-30832

## EARTHQUAKES

Laboratory glassware rack for seismic safety  
[NASA-CASE-ARC-11422-1] c 35 N84-20808

## ECCENTRICS

Hot gas engine with dual crankshafts  
[NASA-CASE-NPO-14221-1] c 37 N81-25370

## ECHELETTE GRATINGS

Cooled echelle grating spectrometer --- for space telescope applications  
[NASA-CASE-NPO-14372-1] c 35 N80-26635

## ECHOES

Miniature implantable ultrasonic echosonometer  
[NASA-CASE-ARC-11035-1] c 52 N79-18580  
Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376

## EDDY CURRENTS

Apparatus and method for inspecting a bearing ball --- eddy current inspection technique  
[NASA-CASE-MFS-25833-1] c 35 N83-21316

## EDGES

Method of forming a sharp edge on an optical device  
[NASA-CASE-GSC-12348-1] c 74 N80-24149

## EFFICIENCY

Recovery of radiation damaged solar cells through thermal annealing  
[NASA-CASE-XGS-04047-2] c 03 N72-11062  
High efficiency multifrequency feed  
[NASA-CASE-GSC-11909] c 32 N74-20883  
Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425

## EFFLUENTS

Vortex generator for controlling the dispersion of effluents in a flowing liquid  
[NASA-CASE-LAR-12045-1] c 34 N77-24423  
Fluid sample collection and distribution system --- qualitative analysis of aqueous samples from several points  
[NASA-CASE-MSC-16841-1] c 34 N79-24285



## EGRESS

- Explosively activated egress area  
[NASA-CASE-LAR-12624-1] c 01 N83-35992
- EJECTION**  
Apparatus for ejection of an instrument cover  
[NASA-CASE-XMF-04132] c 15 N69-27502
- EJECTION SEATS**  
Device for separating occupant from an ejection seat  
Patent  
[NASA-CASE-XMS-04625] c 05 N71-20718
- EJECTORS**  
Ejection unit Patent  
[NASA-CASE-XNP-00676] c 15 N70-38996  
Device for separating occupant from an ejection seat  
Patent  
[NASA-CASE-XMS-04625] c 05 N71-20718  
Latch/ejector unit Patent  
[NASA-CASE-XLA-03538] c 15 N71-24897  
Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609  
Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749
- ELASTIC BODIES**  
Bellville spring assembly with elastic guides  
[NASA-CASE-XNP-09452] c 15 N69-27504  
Means for suppressing or attenuating bending motion of elastic bodies Patent  
[NASA-CASE-XAC-05632] c 32 N71-23971  
Device for measuring tensile forces  
[NASA-CASE-MFS-21728-1] c 35 N74-27865
- ELASTIC DEFORMATION**  
Instrument for measuring torsional creep and recovery  
Patent  
[NASA-CASE-XLE-01481] c 14 N71-10781  
Means for suppressing or attenuating bending motion of elastic bodies Patent  
[NASA-CASE-XAC-05632] c 32 N71-23971
- ELASTIC MEDIA**  
Miniature vibration isolator Patent  
[NASA-CASE-XLA-01019] c 15 N70-40156
- ELASTIC PROPERTIES**  
Elastic universal joint Patent  
[NASA-CASE-XNP-00416] c 15 N70-36947  
Deformable vehicle wheel Patent  
[NASA-CASE-MFS-20400] c 31 N71-18611  
Threadless fastener apparatus Patent  
[NASA-CASE-XFR-05302] c 15 N71-23254  
Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-1] c 06 N73-33076  
Meter for use in detecting tension in straps having predetermined elastic characteristics  
[NASA-CASE-MFS-22189-1] c 35 N75-19615
- ELASTIC SHEETS**  
Method for forming plastic materials Patent  
[NASA-CASE-XMS-05516] c 15 N71-17803
- ELASTOMERS**  
Metal valve pintle with encapsulated elastomeric body  
Patent  
[NASA-CASE-MSC-12116-1] c 15 N71-17648  
Extensometer Patent  
[NASA-CASE-XMF-04680] c 15 N71-19489  
Elastomeric silazane polymers and process for preparing the same Patent  
[NASA-CASE-XMF-04133] c 06 N71-20717  
Bonded elastomeric seal for electrochemical cells  
Patent  
[NASA-CASE-XGS-02631] c 03 N71-23006  
Conductive elastomeric extensometer  
[NASA-CASE-MFS-21049-1] c 52 N74-27864  
Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575  
Method of making hollow elastomeric bodies  
[NASA-CASE-NPO-13535-1] c 37 N76-31524  
Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments  
[NASA-CASE-MSC-14331-3] c 27 N78-32262  
Curable liquid hydrocarbon prepolymers containing hydroxyl groups and process for producing same  
[NASA-CASE-NPO-13137-1] c 27 N80-32514  
Prepolymer dianhydrides  
[NASA-CASE-NPO-13899-1] c 27 N80-32515  
Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104  
Process for the preparation of fluorine containing crosslinked elastomeric polytriazine and product so produced  
[NASA-CASE-ARC-11248-1] c 27 N81-17259  
The 1,2,4-oxadiazole elastomers --- heat resistant polymers  
[NASA-CASE-ARC-11253-1] c 27 N81-17262

- Bifunctional monomers having terminal oxime and cyano or amide groups  
[NASA-CASE-ARC-11253-3] c 27 N81-24256
- Circumferential shaft seal  
[NASA-CASE-LEW-12119-2] c 37 N81-26447
- Heat sealable, flame and abrasion resistant coated fabric --- clothing and containers for space exploration  
[NASA-CASE-MSC-18382-1] c 27 N82-16238
- Preparation of crosslinked 1,2,4-oxadiazole polymer  
[NASA-CASE-ARC-11253-2] c 27 N82-24338
- Method of bonding plasticized elastomer to metal and articles produced thereby  
[NASA-CASE-MFS-25181-1] c 27 N82-24340
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775-1] c 27 N83-28240
- Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322
- Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744
- ELECTRIC ARCS**  
Electric-arc heater Patent  
[NASA-CASE-XLA-00330] c 33 N70-34540  
Electric arc welding Patent  
[NASA-CASE-XMF-00392] c 15 N70-34814  
Electric arc driven wind tunnel Patent  
[NASA-CASE-XMF-00411] c 11 N70-36913  
Electric arc device for heating gases Patent  
[NASA-CASE-XAC-00319] c 25 N70-41628  
Electric arc apparatus Patent  
[NASA-CASE-XAC-01677] c 09 N71-20816  
Arc electrode of graphite with ball tip Patent  
[NASA-CASE-XLE-04788] c 09 N71-22987  
High powered arc electrodes --- producing solar simulator radiation  
[NASA-CASE-LEW-11162-1] c 33 N74-12913  
Electric arc light source having undercut recessed anode  
[NASA-CASE-ARC-10266-1] c 33 N75-29318
- ELECTRIC AUTOMOBILES**  
Additive for zinc electrodes --- electric automobiles  
[NASA-CASE-LEW-13286-1] c 33 N84-14422
- ELECTRIC BATTERIES**  
Spacecraft battery seals  
[NASA-CASE-XGS-03884] c 15 N69-24320  
Sealed battery gas manifold construction Patent  
[NASA-CASE-NPO-03378] c 03 N71-11051  
Method and apparatus for battery charge control  
Patent  
[NASA-CASE-XGS-05432] c 03 N71-19438  
Coulometer and third electrode battery charging circuit  
Patent  
[NASA-CASE-GSC-10487-1] c 03 N71-24719  
Heat activated cell Patent  
[NASA-CASE-LEW-11359] c 03 N71-28579  
Synchronous orbit battery cyclor  
[NASA-CASE-GSC-11211-1] c 03 N72-25020  
Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions  
[NASA-CASE-NPO-11806-1] c 44 N74-19693  
Battery testing device --- for testing cells of multiple-cell battery  
[NASA-CASE-MFS-20761-1] c 44 N74-27519  
Rapid activation and checkout device for batteries  
[NASA-CASE-MFS-22749-1] c 44 N76-14601  
Zinc-halide battery with molten electrolyte  
[NASA-CASE-NPO-11961-1] c 44 N76-16643  
Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N76-27664  
Voltage regulator for battery power source --- using a bipolar transistor  
[NASA-CASE-FRC-10116-1] c 33 N79-23345  
In-situ cross linking of polyvinyl alcohol --- application to battery separator films  
[NASA-CASE-LEW-13135-2] c 27 N81-24257  
State-of-charge coulometer  
[NASA-CASE-NPO-15759-1] c 35 N82-26630
- ELECTRIC BRIDGES**  
Pulsed excitation voltage circuit for transducers  
[NASA-CASE-FRC-10036] c 09 N72-22200  
Infinite range electronics gain control circuit  
[NASA-CASE-GSC-10786-1] c 10 N72-28241  
Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-2] c 33 N75-25041  
Germanium coated microbridge and method  
[NASA-CASE-MFS-23274-1] c 33 N78-13320  
Power converter  
[NASA-CASE-FRC-11014-1] c 33 N82-18494  
Split-cross-bridge-resistor for testing for proper fabrication of integrated circuit  
[NASA-CASE-NPO-16021-1] c 33 N83-24769

## ELECTRIC CELLS

- Connector strips-positive, negative and T tabs  
[NASA-CASE-XGS-01395] c 03 N69-21539
- Heat activated cell with alkali anode and alkali salt electrolyte Patent  
[NASA-CASE-LEW-11358] c 03 N71-26084
- Ion-exchange membrane with platinum electrode assembly Patent  
[NASA-CASE-XMS-02063] c 03 N71-29044
- ELECTRIC CHARGE**  
Method and device for determining battery state of charge Patent  
[NASA-CASE-NPO-10194] c 03 N71-20407  
Automatic battery charger Patent  
[NASA-CASE-XNP-04758] c 03 N71-24605  
State-of-charge coulometer  
[NASA-CASE-NPO-15759-1] c 35 N82-26630
- ELECTRIC CHOPPERS**  
Monostable multivibrator  
[NASA-CASE-GSC-10082-1] c 10 N72-20221  
Transformer regulated self-stabilizing chopper  
[NASA-CASE-XGS-09186] c 33 N78-17295
- ELECTRIC COILS**  
Broadband choke for antenna structure  
[NASA-CASE-XMS-05303] c 07 N69-27482  
Shaft transducer having dc output proportional to angular velocity  
[NASA-CASE-NPO-15706-1] c 35 N84-28017  
Phase sensitive guidance sensor for wire-following vehicles  
[NASA-CASE-NPO-15341-1] c 35 N84-33769
- ELECTRIC CONDUCTORS**  
Electrode and insulator with shielded dielectric junction  
[NASA-CASE-XLE-03778] c 09 N69-21542  
Solar cell matrix Patent  
[NASA-CASE-NPO-10821] c 03 N71-19545  
Electrical switching device Patent  
[NASA-CASE-NPO-10037] c 09 N71-19610  
Flexible conductive disc electrode Patent  
[NASA-CASE-FRC-10029] c 09 N71-24618  
Electrical insulating layer process  
[NASA-CASE-LEW-10489-1] c 15 N72-25447  
Injector for use in high voltage isolators for liquid feed lines  
[NASA-CASE-NPO-11377] c 15 N73-27406  
Solar cell grid patterns  
[NASA-CASE-NPO-13087-2] c 44 N76-31666  
Velocity measurement system  
[NASA-CASE-MFS-23363-1] c 35 N78-32396  
Shielded conductor cable system  
[NASA-CASE-MSC-12745-1] c 33 N81-27397  
Trace water sensor  
[NASA-CASE-NPO-15722-1] c 35 N83-20084
- ELECTRIC CONNECTORS**  
Connector - Electrical  
[NASA-CASE-XLA-01288] c 09 N69-21470  
Test fixture for pellet-like electrical elements  
[NASA-CASE-XNP-06032] c 09 N69-21926  
Coupling device  
[NASA-CASE-XMS-07846-1] c 09 N69-21927  
Electrical feed-through connection for printed circuit boards and printed cable  
[NASA-CASE-XMF-01483] c 14 N69-27431  
Electrical connector pin with wiping action  
[NASA-CASE-XMF-04238] c 09 N69-39734  
Electrical connector Patent Application  
[NASA-CASE-MFS-14741] c 09 N70-20737  
Electrical connector for flat cables Patent  
[NASA-CASE-XMF-00324] c 09 N70-34596  
Printed cable connector Patent  
[NASA-CASE-XMF-00369] c 09 N70-36494  
Printed circuit board with bellows rivet connection  
Patent  
[NASA-CASE-XNP-05082] c 15 N70-41960  
Method of making a molded connector Patent  
[NASA-CASE-XMF-03498] c 15 N71-15988  
Coaxial cable connector Patent  
[NASA-CASE-XNP-04732] c 09 N71-20851  
Connector internal force gauge Patent  
[NASA-CASE-XNP-03918] c 14 N71-23087  
Protection of serially connected solar cells against open circuits by the use of shunting diode Patent  
[NASA-CASE-XLE-04535] c 03 N71-23354  
Microelectronic module package Patent  
[NASA-CASE-XMS-02182] c 10 N71-28783  
Breakaway connector  
[NASA-CASE-NPO-11140] c 15 N72-17455  
Electrical connector  
[NASA-CASE-NPO-10694] c 09 N72-20200  
Radio frequency filter device  
[NASA-CASE-XLA-02609] c 09 N72-25256  
Use of unilluminated solar cells as shunt diodes for a solar array  
[NASA-CASE-GSC-10344-1] c 03 N72-27053

Electrical connector  
[NASA-CASE-MFS-20757] c 09 N72-28225

Device for configuring multiple leads — method for connecting electric leads to printed circuit board  
[NASA-CASE-MFS-22133-1] c 33 N74-26977

Connector — for connecting circuits on different layers of multilayer printed circuit boards  
[NASA-CASE-LAR-11709-1] c 37 N76-27567

Percutaneous connector device  
[NASA-CASE-KSC-10849-1] c 52 N77-14738

Magnetic electrical connectors for biomedical percutaneous implants  
[NASA-CASE-KSC-11030-1] c 52 N77-25772

Electrical self-aligning connector  
[NASA-CASE-MFS-25211-1] c 33 N80-32651

Decommutator patchboard verifier  
[NASA-CASE-KSC-11065-1] c 33 N81-26359

Electrical self-aligning connector — orbital service vehicles  
[NASA-CASE-MFS-25211-2] c 33 N84-14423

**ELECTRIC CONTACTS**

Solid state switch  
[NASA-CASE-XNP-09228] c 09 N69-27500

Deflective rod switch with elastic support and sealing means Patent  
[NASA-CASE-XNP-09808] c 09 N71-12518

Method of making electrical contact on silicon solar cell and resultant product Patent  
[NASA-CASE-XLE-04787] c 03 N71-20492

Continuous turning slip ring assembly Patent  
[NASA-CASE-XMF-01049] c 15 N71-23049

Electrical connector  
[NASA-CASE-MFS-20757] c 09 N72-28225

Electrostatic measurement system — for contact-electrifying a dielectric  
[NASA-CASE-MFS-22129-1] c 33 N75-18477

Process for preparing liquid metal electrical contact device  
[NASA-CASE-LEW-11978-1] c 33 N77-26385

Non-contacting power transfer device  
[NASA-CASE-GSC-12595-1] c 33 N82-24422

Solar cell having improved back surface reflector  
[NASA-CASE-LEW-13620-1] c 44 N83-13579

**ELECTRIC CONTROL**

Increasing efficiency of switching type regulator circuits Patent  
[NASA-CASE-XMS-09352] c 09 N71-23316

**ELECTRIC CURRENT**

Didymium hydrate additive to nickel hydroxide electrodes Patent  
[NASA-CASE-XGS-03505] c 03 N71-10608

Electrical load protection device Patent  
[NASA-CASE-MSC-12135-1] c 09 N71-12526

Micro current measuring device using plural logarithmic response heated filamentary type diodes Patent  
[NASA-CASE-XNP-00384] c 09 N71-13530

Connector internal force gauge Patent  
[NASA-CASE-XNP-03918] c 14 N71-23087

Pulse modulator providing fast rise and fall times Patent  
[NASA-CASE-XMS-04919] c 09 N71-23270

Polarity sensitive circuit Patent  
[NASA-CASE-XNP-00952] c 10 N71-23271

Protection of serially connected solar cells against open circuits by the use of shunting diode Patent  
[NASA-CASE-XLE-04535] c 03 N71-23354

Color television systems using a single gun color cathode ray tube Patent  
[NASA-CASE-ERC-10098] c 09 N71-28618

Current dependent filter inductance  
[NASA-CASE-ERC-10139] c 09 N72-17154

High voltage transistor amplifier with constant current load  
[NASA-CASE-NPO-11023] c 09 N72-17155

Current steering commutator  
[NASA-CASE-NPO-10743] c 08 N72-21199

Saturation current protection apparatus for saturable core transformers  
[NASA-CASE-ERC-10075-2] c 09 N72-22196

Thermal to electrical power conversion system with solid-state switches with Seebeck effect compensation  
[NASA-CASE-NPO-11388] c 03 N72-23048

Load current sensor for a series pulse width modulated power supply  
[NASA-CASE-GSC-10656-1] c 09 N72-25249

Method and apparatus for limiting field emission current  
[NASA-CASE-ERC-10015-2] c 10 N72-27246

Deposition apparatus  
[NASA-CASE-LAR-10541-1] c 15 N72-32487

Lightning current measuring systems  
[NASA-CASE-KSC-10807-1] c 33 N75-26246

Overload protection system for power inverter  
[NASA-CASE-NPO-13872-1] c 33 N78-10377

Shunt regulation electric power system  
[NASA-CASE-GSC-10135] c 33 N78-17296

Lightning current waveform measuring system  
[NASA-CASE-KSC-11018-1] c 33 N79-10337

Electroexplosive device  
[NASA-CASE-NPO-13858-1] c 28 N79-11231

Remote lightning monitor system  
[NASA-CASE-KSC-11031-1] c 33 N79-11315

Lightning current detector  
[NASA-CASE-KSC-11057-1] c 33 N79-14305

Driver for solar cell I-V characteristic plots  
[NASA-CASE-NPO-14096-1] c 44 N80-18551

Electrical power generating system — for windpowered generation  
[NASA-CASE-MFS-24368-3] c 33 N81-22280

Hybrid power semiconductor switch  
[NASA-CASE-LEW-13922-1] c 33 N84-11389

**ELECTRIC DISCHARGES**

Electrical discharge apparatus for forming Patent  
[NASA-CASE-XMF-00375] c 15 N70-34249

High voltage pulse generator Patent  
[NASA-CASE-MSC-12178-1] c 09 N71-13518

Pulse generating circuit employing switch means on ends of delay line for alternately charging and discharging same Patent  
[NASA-CASE-XNP-00745] c 10 N71-28960

Rapidly pulsed, high intensity, incoherent light source  
[NASA-CASE-XLE-2529-3] c 33 N74-20859

Voltage feed through apparatus having reduced partial discharge  
[NASA-CASE-GSC-12347-1] c 33 N80-18286

**ELECTRIC ENERGY STORAGE**

Apparatus for measuring current flow Patent  
[NASA-CASE-XGS-02439] c 14 N71-19431

Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N76-27664

Electrically rechargeable REDOX flow cell  
[NASA-CASE-LEW-12220-1] c 44 N77-14581

Gels as battery separators for soluble electrode cells  
[NASA-CASE-LEW-12384-1] c 44 N77-22606

Electrochemical cell for rebalancing REDOX flow system  
[NASA-CASE-LEW-13150-1] c 44 N79-26474

Toroidal cell and battery — storage battery for high amp-hour load applications  
[NASA-CASE-LEW-12918-1] c 44 N81-24521

**ELECTRIC EQUIPMENT**

Ac power amplifier Patent Application  
[NASA-CASE-LAR-10218-1] c 09 N70-34559

Generator for a space power system Patent  
[NASA-CASE-XLE-04250] c 09 N71-20446

High impedance measuring apparatus Patent  
[NASA-CASE-XMS-08589-1] c 09 N71-20569

Regulated power supply Patent  
[NASA-CASE-XMS-01991] c 09 N71-21449

Method for improving the signal-to-noise ratio of the Wheatstone bridge type bolometer Patent  
[NASA-CASE-XLE-02810] c 14 N71-25901

Buck boost voltage regulation circuit Patent  
[NASA-CASE-GSC-10735-1] c 10 N71-26085

Electronically resettable fuse Patent  
[NASA-CASE-XGS-11177] c 09 N71-27001

Voltage regulator Patent  
[NASA-CASE-ERC-10113] c 09 N71-27053

Digital pulse width selection circuit Patent  
[NASA-CASE-XLA-07788] c 09 N71-29139

Solar energy powered heliostropes  
[NASA-CASE-GSC-10945-1] c 21 N72-31637

Temperature compensated light source using a light emitting diode  
[NASA-CASE-ARC-10467-1] c 09 N73-14214

Hermetically sealed semiconductor  
[NASA-CASE-GSC-10791-1] c 15 N73-14469

Overvoltage protection network  
[NASA-CASE-ARC-10197-1] c 33 N74-17929

Sprag solenoid brake — development and operations of electrically controlled brake  
[NASA-CASE-MFS-21848-1] c 37 N74-26976

Shock absorbing mount for electrical components  
[NASA-CASE-NPO-13253-1] c 37 N75-18573

Self-regulating proportionally controlled heating apparatus and technique  
[NASA-CASE-GSC-11752-1] c 77 N75-20140

**ELECTRIC EQUIPMENT TESTS**

Test fixture for pellet-like electrical elements  
[NASA-CASE-XNP-06032] c 09 N69-21926

Pulse amplitude and width detector Patent  
[NASA-CASE-XMF-06519] c 09 N71-12519

High power-high voltage waterload Patent  
[NASA-CASE-XNP-05381] c 09 N71-20842

**ELECTRIC FIELD STRENGTH**

Apparatus for field strength measurement of a space vehicle Patent  
[NASA-CASE-XLE-00820] c 14 N71-16014

Apparatus for measuring electric field strength on the surface of a model vehicle Patent  
[NASA-CASE-XLE-02038] c 09 N71-16086

Floating two force component measuring device Patent  
[NASA-CASE-XAC-04885] c 14 N71-23790

Apparatus for determining the deflection of an electron beam impinging on a target Patent  
[NASA-CASE-XMF-06617] c 09 N71-24843

**ELECTRIC FIELDS**

Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-00755] c 01 N71-13410

Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-05828] c 01 N71-13411

Instrument for measuring potentials on two dimensional electric field plots Patent  
[NASA-CASE-XLA-08493] c 10 N71-19421

Electron beam instrument for measuring electric fields Patent  
[NASA-CASE-XMF-10289] c 14 N71-23699

Field ionization electrodes Patent  
[NASA-CASE-ERC-10013] c 09 N71-26678

Determining distance to lightning strokes from a single station  
[NASA-CASE-KSC-10698] c 07 N73-20175

Rocket borne instrument to measure electric fields inside electrified clouds  
[NASA-CASE-KSC-10730-1] c 14 N73-32318

Electric field measuring and display system — for cloud formations  
[NASA-CASE-KSC-10731-1] c 33 N74-27862

Lightning discharge identification system  
[NASA-CASE-KSC-11099-1] c 47 N82-24779

**ELECTRIC FILTERS**

Static inverters which sum a plurality of waves Patent  
[NASA-CASE-XMF-00663] c 08 N71-18752

Remodulator filter Patent  
[NASA-CASE-NPO-10198] c 09 N71-24806

RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171

Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain  
[NASA-CASE-ARC-10192] c 09 N72-21245

Radio frequency filter device  
[NASA-CASE-XLA-02608] c 09 N72-25256

Filter for third order phase locked loops  
[NASA-CASE-NPO-11941-1] c 10 N73-27171

**ELECTRIC FURNACES**

High gradient directional solidification furnace — for space processing  
[NASA-CASE-MFS-25983-1] c 35 N84-16531

**ELECTRIC FUSES**

Electrical load protection device Patent  
[NASA-CASE-MSC-12135-1] c 09 N71-12526

Diode and protection fuse unit Patent  
[NASA-CASE-XKS-03381] c 09 N71-22796

Fused switch  
[NASA-CASE-XMS-01244-1] c 33 N79-33393

**ELECTRIC GENERATORS**

Regulated dc to dc converter  
[NASA-CASE-XGS-03429] c 03 N69-21330

Generator for a space power system Patent  
[NASA-CASE-XLE-04250] c 09 N71-20446

Solid state pulse generator with constant output width, for variable input width, in nanosecond range Patent  
[NASA-CASE-XGS-03427] c 10 N71-23029

Continuous turning slip ring assembly Patent  
[NASA-CASE-XMF-01049] c 15 N71-23049

Positive dc to positive dc converter Patent  
[NASA-CASE-XMF-14301] c 09 N71-23188

High temperature ferromagnetic cobalt-base alloy Patent  
[NASA-CASE-XLE-03629] c 17 N71-23248

Variable width pulse integrator Patent  
[NASA-CASE-XLA-03356] c 10 N71-23315

Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114-2] c 09 N71-24807

RC rate generator for slow speed measurement Patent  
[NASA-CASE-XMF-02966] c 10 N71-24863

Pulse width inverter Patent  
[NASA-CASE-MFS-10068] c 10 N71-25139

Multiple varactor frequency doubler Patent  
[NASA-CASE-XMF-04958-1] c 10 N71-26414

Failure sensing and protection circuit for converter networks Patent  
[NASA-CASE-GSC-10114-1] c 10 N71-27386

Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114] c 33 N71-27862

Load-insensitive electrical device  
[NASA-CASE-XER-11046] c 09 N72-22203

Controllable load insensitive power converters  
[NASA-CASE-ERC-10268] c 09 N72-25252

A dc to ac to dc converter having transistor synchronous rectifiers  
[NASA-CASE-GSC-11126-1] c 09 N72-25253

Electromagnetic wave energy converter  
[NASA-CASE-GSC-11394-1] c 09 N73-32109

Heat operated cryogenic electrical generator  
[NASA-CASE-NPO-13303-1] c 20 N75-24837

Electric power generation system directory from laser power  
[NASA-CASE-NPO-13308-1] c 36 N75-30524

Smoke generator  
[NASA-CASE-ARC-10905-1] c 37 N77-13418

Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-11389-1] c 33 N77-26387

Wind wheel electric power generator  
[NASA-CASE-MFS-23515-1] c 44 N80-21828

Natural turbulence electrical power generator --- using wave action or random motion  
[NASA-CASE-LAR-11551-1] c 44 N80-29834

Electrical power generating system --- for windpowered generation  
[NASA-CASE-MFS-24368-3] c 33 N81-22280

Linear magnetic motor/generator --- to generate electric energy using magnetic flux for spacecraft power supply  
[NASA-CASE-GSC-12518-1] c 33 N82-24421

Electrical power generating system  
[NASA-CASE-MFS-25302-1] c 33 N83-28319

Control system for an induction motor with energy recovery  
[NASA-CASE-MFS-25477-1] c 33 N84-14424

**ELECTRIC IGNITION**  
Method of making a solid propellant rocket motor Patent  
[NASA-CASE-XLA-04126] c 28 N71-26779

**ELECTRIC MOTOR VEHICLES**  
Automotive absorption air conditioner utilizing solar and motor waste heat  
[NASA-CASE-NPO-15183-1] c 44 N82-26776

**ELECTRIC MOTORS**  
Bus voltage compensation circuit for controlling direct current motor  
[NASA-CASE-XMS-04215-1] c 09 N69-39987

Electronic motor control system Patent  
[NASA-CASE-XMF-01129] c 09 N70-38712

Electronic beam switching commutator Patent  
[NASA-CASE-XGS-01451] c 09 N71-10677

Regenerative braking system Patent  
[NASA-CASE-XMF-01096] c 10 N71-16030

Angular position and velocity sensing apparatus Patent  
[NASA-CASE-XGS-05680] c 14 N71-17585

Reversible current control apparatus Patent  
[NASA-CASE-XLA-09371] c 10 N71-18724

Stepping motor control circuit Patent  
[NASA-CASE-GSC-10366-1] c 10 N71-18772

Detent servo motor Patent  
[NASA-CASE-XNP-06936] c 15 N71-24695

Transistor servo system including a unique differential amplifier circuit Patent  
[NASA-CASE-XMF-05195] c 10 N71-24861

Velocity limiting safety system Patent  
[NASA-CASE-XLA-07473] c 15 N71-24895

Direct current motor with stationary armature and field Patent  
[NASA-CASE-XGS-05290] c 09 N71-25999

Dual polarity full wave dc motor drive Patent  
[NASA-CASE-XNP-07477] c 09 N71-26092

Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
[NASA-CASE-XGS-04224] c 10 N71-26418

A dc motor speed control system Patent  
[NASA-CASE-MFS-14610] c 09 N71-28886

Optimal control system for an electric motor driven vehicle  
[NASA-CASE-NPO-11210] c 11 N72-20244

Electric motive machine including magnetic bearing  
[NASA-CASE-XGS-07805] c 15 N72-33476

Redundant speed control for brushless Hall effect motor  
[NASA-CASE-MFS-20207-1] c 09 N73-32107

Three phase full wave dc motor decoder  
[NASA-CASE-GSC-11824-1] c 33 N77-26386

Rotary electric device  
[NASA-CASE-GSC-12138-1] c 33 N79-20314

Controller for computer control of brushless dc motors --- automobile engines  
[NASA-CASE-NPO-13970-1] c 33 N81-20352

Linear magnetic motor/generator --- to generate electric energy using magnetic flux for spacecraft power supply  
[NASA-CASE-GSC-12518-1] c 33 N82-24421

Power control for ac motor  
[NASA-CASE-MFS-25862] c 33 N83-28329

**ELECTRIC NETWORKS**  
Condition and condition duration indicator Patent  
[NASA-CASE-XMF-01097] c 10 N71-16058

Solid state pulse generator with constant output width, for variable input width, in nanosecond range Patent  
[NASA-CASE-XGS-03427] c 10 N71-23029

Increasing efficiency of switching type regulator circuits Patent  
[NASA-CASE-XMS-09352] c 09 N71-23316

Broadband frequency discriminator Patent  
[NASA-CASE-NPO-10096] c 07 N71-24583

Test apparatus for locating shorts during assembly of electrical buses  
[NASA-CASE-ARC-11116-1] c 33 N82-24420

**ELECTRIC POTENTIAL**  
Method and apparatus for battery charge control Patent  
[NASA-CASE-XGS-05432] c 03 N71-19438

Positive dc to positive dc converter Patent  
[NASA-CASE-XMF-14301] c 09 N71-23188

Variable width pulse integrator Patent  
[NASA-CASE-XLA-03356] c 10 N71-23315

Voltage dropout sensor Patent  
[NASA-CASE-KSC-10020] c 10 N71-27338

Automated equipotential plotter  
[NASA-CASE-NPO-11134] c 09 N72-21246

Pulsed excitation voltage circuit for transducers  
[NASA-CASE-FRC-10036] c 09 N72-22200

Load-insensitive electrical device  
[NASA-CASE-XER-11046] c 09 N72-22203

Continuously variable voltage controlled phase shifter  
[NASA-CASE-NPO-11129] c 09 N72-33204

Photoelectron spectrometer with means for stabilizing sample surface potential  
[NASA-CASE-NPO-13772-1] c 35 N78-10429

Microcomputerized electric field meter diagnostic and calibration system  
[NASA-CASE-KSC-11035-1] c 35 N78-28411

Driver for solar cell I-V characteristic plots  
[NASA-CASE-NPO-14096-1] c 44 N80-18551

Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348

Method for determining the point of zero zeta potential of semiconductor materials  
[NASA-CASE-LAR-12893-1] c 33 N82-26573

Closed loop electrostatic system  
[NASA-CASE-NPO-15553-1] c 33 N83-12335

Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996

Method for detecting coliform organisms  
[NASA-CASE-ARC-11322-1] c 51 N83-28849

Hybrid power semiconductor switch  
[NASA-CASE-LEW-13922-1] c 33 N84-11389

Increased voltage photovoltaic cell  
[NASA-CASE-NPO-16155-1] c 44 N84-20917

Phase detector for three-phase power factor controller  
[NASA-CASE-MFS-25854-1] c 33 N84-27975

A new solar cell design for improved open circuit voltage and high efficiency  
[NASA-CASE-NPO-16126-1] c 44 N84-32911

Simplified dc to dc converter  
[NASA-CASE-LEW-13495-1] c 33 N84-33663

**ELECTRIC POWER**  
Switching circuit employing regeneratively connected complementary transistors Patent  
[NASA-CASE-XNP-02654] c 10 N70-42032

High power-high voltage waterload Patent  
[NASA-CASE-XNP-05381] c 09 N71-20842

Power factor control system for AC induction motors  
[NASA-CASE-MFS-23280-1] c 33 N78-10376

Shunt regulation electric power system  
[NASA-CASE-GSC-10135] c 33 N78-17296

Electrical power generating system --- for windpowered generation  
[NASA-CASE-MFS-24368-3] c 33 N81-22280

**ELECTRIC POWER PLANTS**  
Ocean thermal plant  
[NASA-CASE-KSC-11034-1] c 44 N78-32542

Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018

**ELECTRIC POWER SUPPLIES**  
Current dependent filter inductance  
[NASA-CASE-ERC-10139] c 09 N72-17154

Thermal to electrical power conversion system with solid-state switches with Seebeck effect compensation  
[NASA-CASE-NPO-11388] c 03 N72-23048

Parasitic suppressing circuit  
[NASA-CASE-ERC-10403-1] c 10 N73-26228

Powerplexer  
[NASA-CASE-MSC-12396-1] c 03 N73-31988

Inherent redundancy electric heater  
[NASA-CASE-MFS-21462-1] c 33 N74-14935

Temperature compensated current source  
[NASA-CASE-MSC-11235] c 33 N78-17294

High voltage power supply  
[NASA-CASE-GSC-12818-1] c 33 N83-29594

**ELECTRIC POWER TRANSMISSION**  
Magnetic power switch Patent  
[NASA-CASE-NPO-10242] c 09 N71-24803

Failure sensing and protection circuit for converter networks Patent  
[NASA-CASE-GSC-10114-1] c 10 N71-27366

Powerplexer  
[NASA-CASE-MSC-12396-1] c 03 N73-31988

Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver  
[NASA-CASE-MFS-21470-1] c 44 N74-19870

Electrical rotary joint apparatus for large space structures  
[NASA-CASE-MFS-23981-1] c 07 N83-20944

**ELECTRIC PROPULSION**  
Electric propulsion engine test chamber Patent  
[NASA-CASE-XLE-00252] c 11 N70-34844

**ELECTRIC PULSES**  
Pulse counting circuit which simultaneously indicates the occurrence of the nth pulse Patent  
[NASA-CASE-XMF-00906] c 09 N70-41655

Variable pulse width multiplier Patent  
[NASA-CASE-XLA-02850] c 09 N71-20447

Phonocardiograph transducer Patent  
[NASA-CASE-XMS-05365] c 14 N71-22993

Solid state pulse generator with constant output width, for variable input width, in nanosecond range Patent  
[NASA-CASE-XGS-03427] c 10 N71-23029

Variable width pulse integrator Patent  
[NASA-CASE-XLA-03356] c 10 N71-23315

Pulse rise time and amplitude detector Patent  
[NASA-CASE-XMF-08804] c 09 N71-24717

Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137

Precision rectifier with FET switching means Patent  
[NASA-CASE-ARC-10101-1] c 09 N71-33109

Phase modulating with odd and even finite power series of a modulating signal  
[NASA-CASE-LAR-11607-1] c 32 N77-14292

Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310

Active lamp pulse driver circuit --- optical pumping of laser media  
[NASA-CASE-GSC-12566-1] c 33 N83-34189

**ELECTRIC RELAYS**  
Protective circuit of the spark gap type  
[NASA-CASE-XAC-08981] c 09 N69-39897

Time-division multiplexer Patent  
[NASA-CASE-XNP-00431] c 09 N70-38998

Out of tolerance warning alarm system for plurality of monitored circuits Patent  
[NASA-CASE-XMS-10984-1] c 10 N71-19417

Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773

Circuit breaker utilizing magnetic latching relays Patent  
[NASA-CASE-MSC-11277] c 09 N71-29008

Multi-cell battery protection system  
[NASA-CASE-LEW-12039-1] c 44 N78-14625

**ELECTRIC ROCKET ENGINES**  
Electron bombardment ion engine Patent  
[NASA-CASE-XNP-04124] c 28 N71-21822

**ELECTRIC SPARKS**  
High voltage isolation transformer  
[NASA-CASE-GSC-12817-1] c 33 N83-29590

Method and device for detection of a substance --- determining carbon fiber release in fire situations  
[NASA-CASE-NPO-14940-1] c 33 N83-31954

**ELECTRIC STIMULI**  
Tread drum for animals --- having an electrical shock station  
[NASA-CASE-ARC-10917-1] c 51 N78-27733

**ELECTRIC SWITCHES**  
Thermionic diode switch Patent  
[NASA-CASE-NPO-10404] c 03 N71-12255

Deflective rod switch with elastic support and sealing means Patent  
[NASA-CASE-XNP-09808] c 09 N71-12518

Electrical switching device Patent  
[NASA-CASE-NPO-10037] c 09 N71-19610

Plural position switch status and operativeness checker  
[NASA-CASE-XLA-08799] c 10 N71-27272

Pulse generating circuit employing switch means on ends of delay line for alternately charging and discharging same Patent  
[NASA-CASE-XNP-00745] c 10 N71-28960

Cyclic switch Patent  
[NASA-CASE-LEW-10155-1] c 09 N71-29035

Telemetry actuated switch  
[NASA-CASE-ARC-10105] c 09 N72-17153

Differential pressure control  
[NASA-CASE-MFS-14216] c 14 N73-13418

Fused switch  
[NASA-CASE-XMS-01244-1] c 33 N79-33393

- Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418
- Automatic thermal switch --- spacecraft applications  
[NASA-CASE-GSC-12553-1] c 34 N83-28356
- ELECTRIC TERMINALS**
- Electrical connector pin with wiping action  
[NASA-CASE-XMF-04238] c 09 N69-39734
- Electrical connector for flat cables Patent  
[NASA-CASE-XMF-00324] c 09 N70-34596
- Tool attachment for spreading loose elements away from work Patent  
[NASA-CASE-XMF-02107] c 15 N71-10809
- Electrical spot terminal assembly Patent  
[NASA-CASE-NPO-10034] c 15 N71-17685
- Resistance soldering apparatus  
[NASA-CASE-GSC-10913] c 15 N72-22491
- Radio frequency filter device  
[NASA-CASE-XLA-02609] c 09 N72-25256
- Device for configuring multiple leads --- method for connecting electric leads to printed circuit board  
[NASA-CASE-MFS-22133-1] c 33 N74-26977
- ELECTRIC WELDING**
- Electric welding torch Patent  
[NASA-CASE-XMF-02330] c 15 N71-23798
- Butt welder for fine gauge tungsten/rhenium thermocouple wire  
[NASA-CASE-LAR-10103-1] c 15 N73-14468
- Welding blades to rotors  
[NASA-CASE-LEW-10533-1] c 15 N73-28515
- ELECTRIC WIRE**
- Wire grid forming apparatus Patent  
[NASA-CASE-XLE-00023] c 15 N70-33330
- Weld control system using thermocouple wire Patent  
[NASA-CASE-MFS-06074] c 15 N71-20393
- Ablation sensor Patent  
[NASA-CASE-XLA-01794] c 33 N71-21586
- Resistance soldering apparatus  
[NASA-CASE-GSC-10913] c 15 N72-22491
- Lead attachment to high temperature devices  
[NASA-CASE-ERC-10224] c 09 N72-25261
- Means for accommodating large overstrain in lead wires --- by storing extra length of wire in stretchable loop  
[NASA-CASE-LAR-10168-1] c 33 N74-22865
- Device for configuring multiple leads --- method for connecting electric leads to printed circuit board  
[NASA-CASE-MFS-22133-1] c 33 N74-26977
- High current electrical lead --- for thermionic converters  
[NASA-CASE-LEW-10950-1] c 33 N74-27683
- Wire stripper  
[NASA-CASE-FRC-10111-1] c 37 N79-10419
- Method and apparatus for preparing multiconductor cable with flat conductors  
[NASA-CASE-MFS-10946-1] c 31 N79-21226
- Edge coating of flat wires  
[NASA-CASE-XMF-05757-1] c 31 N79-21227
- Thin wire pointing method  
[NASA-CASE-NPO-15789-1] c 31 N83-19947
- ELECTRICAL ENGINEERING**
- Relay binary circuit Patent  
[NASA-CASE-XMF-00421] c 09 N70-34502
- Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent  
[NASA-CASE-XAC-02807] c 09 N71-23021
- ELECTRICAL FAULTS**
- Apparatus for overcurrent protection of a push-pull amplifier Patent  
[NASA-CASE-MSC-12033-1] c 09 N71-13531
- Failure sensing and protection circuit for converter networks Patent  
[NASA-CASE-GSC-10114-1] c 10 N71-27366
- Solar cell assembly test method  
[NASA-CASE-NPO-10401] c 03 N72-20033
- Shared memory for a fault-tolerant computer  
[NASA-CASE-NPO-13139-1] c 60 N76-21914
- ELECTRICAL IMPEDANCE**
- High voltage transistor circuit Patent  
[NASA-CASE-XNP-06937] c 09 N71-19518
- High impedance measuring apparatus Patent  
[NASA-CASE-XMS-08589-1] c 09 N71-20569
- Multialarm summary alarm Patent  
[NASA-CASE-XLE-03061-1] c 10 N71-24798
- Signal conditioning circuit apparatus --- with constant input impedance  
[NASA-CASE-ARC-10348-1] c 33 N75-19518
- Readout electrode assembly for measuring biological impedance  
[NASA-CASE-ARC-10816-1] c 35 N76-24525
- Solid-state current transformer  
[NASA-CASE-MFS-22560-1] c 33 N77-14335
- ELECTRICAL INSULATION**
- Solenoid construction Patent  
[NASA-CASE-XNP-01951] c 09 N70-41928
- Method and apparatus for cryogenic wire stripping Patent  
[NASA-CASE-MFS-10340] c 15 N71-17628
- Plasma device feed system Patent  
[NASA-CASE-XLE-02902] c 25 N71-21694
- Propellant feed isolator Patent  
[NASA-CASE-LEW-10210-1] c 28 N71-26781
- Electrical insulating layer process  
[NASA-CASE-LEW-10489-1] c 15 N72-25447
- Bio-isolated dc operational amplifier --- for bioelectric measurements  
[NASA-CASE-ARC-10596-1] c 33 N74-21851
- Stored charge transistor  
[NASA-CASE-NPO-11156-2] c 33 N75-31331
- Method of making an insulation foil  
[NASA-CASE-LEW-11484-1] c 24 N75-33181
- Gas ion laser construction for electrically isolating the pressure gauge thereof  
[NASA-CASE-MFS-22597] c 36 N78-17366
- Wire stripper  
[NASA-CASE-FRC-10111-1] c 37 N79-10419
- ELECTRICAL MEASUREMENT**
- Device for determining the accuracy of the flare on a flared tube  
[NASA-CASE-XKS-03495] c 14 N69-39785
- Bootstrap unloader Patent  
[NASA-CASE-XNP-09768] c 09 N71-12516
- Micro current measuring device using plural logarithmic response heated filamentary type diodes Patent  
[NASA-CASE-XNP-00384] c 09 N71-13530
- Apparatus for field strength measurement of a space vehicle Patent  
[NASA-CASE-XLE-00820] c 14 N71-16014
- Apparatus for measuring current flow Patent  
[NASA-CASE-XGS-02439] c 14 N71-19431
- High voltage divider system Patent  
[NASA-CASE-XLE-02008] c 09 N71-21583
- Ablation sensor Patent  
[NASA-CASE-XLA-01794] c 33 N71-21586
- Hall current measuring apparatus having a series resistor for temperature compensation Patent  
[NASA-CASE-XAC-01662] c 14 N71-23037
- Connector internal force gauge Patent  
[NASA-CASE-XNP-03918] c 14 N71-23087
- Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244
- Lightning current measuring systems  
[NASA-CASE-KSC-10807-1] c 33 N75-26246
- Rapid activation and checkout device for batteries  
[NASA-CASE-MFS-22749-1] c 44 N76-14801
- Electrical conductivity cell and method for fabricating the same  
[NASA-CASE-ARC-10810-1] c 33 N76-19339
- Trielectrode capacitive pressure transducer  
[NASA-CASE-ARC-10711-2] c 33 N76-21390
- Readout electrode assembly for measuring biological impedance  
[NASA-CASE-ARC-10816-1] c 35 N76-24525
- Apparatus for measuring semiconductor device resistance  
[NASA-CASE-NPO-14424-1] c 33 N80-32650
- Lightning discharge identification system  
[NASA-CASE-KSC-11099-1] c 47 N82-24779
- Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 35 N82-31659
- ELECTRICAL PROPERTIES**
- Drift compensation circuit for analog to digital converter Patent  
[NASA-CASE-XNP-04780] c 08 N71-19687
- Electronically resettable fuse Patent  
[NASA-CASE-XGS-11177] c 09 N71-27001
- Voltage regulator Patent  
[NASA-CASE-ERC-10113] c 09 N71-27053
- Radiometric temperature reference Patent  
[NASA-CASE-MSC-13276-1] c 14 N71-27058
- Solar cell matrix  
[NASA-CASE-NPO-11190] c 03 N71-34044
- Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions  
[NASA-CASE-NPO-11806-1] c 44 N74-18693
- Thermocouple tape --- developed from thermoelectrically different metals  
[NASA-CASE-LEW-11072-2] c 35 N76-15434
- Modification of the electrical and optical properties of polymers --- ion irradiation to create texture  
[NASA-CASE-LEW-13027-1] c 27 N80-24437
- ELECTRICAL RESISTANCE**
- Positive contact resistance soldering unit  
[NASA-CASE-KSC-10242] c 15 N72-23497
- RF-source resistance meters  
[NASA-CASE-NPO-11291-1] c 14 N73-30388
- Apparatus for measuring semiconductor device resistance  
[NASA-CASE-NPO-14424-1] c 33 N80-32650
- Reactanceless bandpass amplifier  
[NASA-CASE-GSC-12788-1] c 33 N83-12333
- ELECTRICAL RESISTIVITY**
- GaAs solar detector using manganese as a doping agent Patent  
[NASA-CASE-XNP-01328] c 26 N71-18064
- Thermopile vacuum gage tube simulator Patent  
[NASA-CASE-XLA-02758] c 14 N71-18481
- Electrically conductive fluorocarbon polymer  
[NASA-CASE-XLE-06774-2] c 06 N72-25150
- Electrical conductivity cell and method for fabricating the same  
[NASA-CASE-ARC-10810-1] c 33 N76-19339
- Durable antistatic coating for polymethylmethacrylate  
[NASA-CASE-NPO-13867-1] c 27 N78-14164
- Remote lightning monitor system  
[NASA-CASE-KSC-11031-1] c 33 N79-11315
- Lightweight electrically-powered flexible thermal laminate --- made of metal and nonconductive yarns  
[NASA-CASE-MSC-12662-1] c 33 N79-12331
- Electrically conductive thermal control coatings  
[NASA-CASE-GSC-12207-1] c 24 N79-14156
- Electrical self-aligning connector  
[NASA-CASE-MFS-25211-1] c 33 N80-32651
- Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396
- Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709
- High voltage isolation transformer  
[NASA-CASE-GSC-12817-1] c 33 N83-29590
- Method and device for detection of a substance --- determining carbon fiber release in fire situations  
[NASA-CASE-NPO-14940-1] c 33 N83-31954
- Piezoelectric composite materials  
[NASA-CASE-LEW-12582-1] c 76 N83-34796
- Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986
- ELECTRICITY**
- Thermionic converter with current augmented by self induced magnetic field Patent  
[NASA-CASE-XLE-01903] c 22 N71-23599
- Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425
- ELECTRO-OPTICS**
- Electro-optical scanning apparatus Patent Application  
[NASA-CASE-NPO-11106] c 14 N70-34697
- Electro-optical alignment control system Patent  
[NASA-CASE-XMF-00908] c 14 N70-40238
- Polarimeter for transient measurement Patent  
[NASA-CASE-XNP-08883] c 23 N71-16101
- Light direction sensor  
[NASA-CASE-NPO-11201] c 14 N72-27409
- Ultrastable calibrated light source  
[NASA-CASE-MSC-12293-1] c 14 N72-27411
- Optical conversion method --- for spacecraft television  
[NASA-CASE-MSC-12618-1] c 74 N78-17865
- Noncontacting method for measuring angular deflection  
[NASA-CASE-LAR-12178-1] c 74 N80-21138
- Integrated optics in an electrically scanned imaging Fourier transform spectrometer  
[NASA-CASE-NPO-15844-1] c 74 N83-12992
- Optical distance measuring instrument  
[US-PATENT-APPL-SN-406820] c 74 N83-13982
- Miniature electro-optical air flow sensor  
[NASA-CASE-LAR-13065-1] c 74 N83-25539
- ELECTROACOUSTIC TRANSDUCERS**
- Respiration monitor  
[NASA-CASE-FRC-10012] c 14 N72-17329
- Material suspension within an acoustically excited resonant chamber --- at near weightless conditions  
[NASA-CASE-NPO-13263-1] c 12 N75-24774
- CDS solid state phase insensitive ultrasonic transducer --- annealing dadmium sulfide crystals  
[NASA-CASE-LAR-12304-1] c 35 N80-20559
- ELECTROACOUSTIC WAVES**
- Phonocardiogram simulator Patent  
[NASA-CASE-XKS-10804] c 05 N71-24606
- Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-16027-1] c 33 N83-29595
- ELECTROCARDIOGRAPHY**
- Phonocardiogram simulator Patent  
[NASA-CASE-XKS-10804] c 05 N71-24606
- Ratemeter  
[NASA-CASE-MFS-20418] c 14 N73-24473
- Insulated electrocardiographic electrodes --- without paste electrolyte  
[NASA-CASE-MSC-14339-1] c 05 N75-24716
- Pocket ECG electrode  
[NASA-CASE-ARC-11258-1] c 52 N80-33081
- Subcutaneous electrode structure  
[NASA-CASE-ARC-11117-1] c 52 N81-14612
- ELECTROCATALYSTS**
- Electrocatalyst for oxygen reduction  
[NASA-CASE-HQN-10537-1] c 06 N72-10138

Catalyst surfaces for the chromous/chromic redox couple  
 [NASA-CASE-LEW-13148-1] c 33 N80-20487  
 Zirconium carbide as an electrocatalyst for the chromous-chromic redox couple  
 [NASA-CASE-LEW-13248-1] c 44 N83-27344

**ELECTROCHEMICAL CELLS**  
 Apparatus for measuring swelling characteristics of membranes  
 [NASA-CASE-XGS-03865] c 14 N69-21363  
 Prevention of pressure build-up in electrochemical cells  
 Patent  
 [NASA-CASE-XGS-01419] c 03 N70-41864  
 Non-magnetic battery case Patent  
 [NASA-CASE-XGS-00886] c 03 N71-11053  
 Sealing device for an electrochemical cell Patent  
 [NASA-CASE-XGS-02630] c 03 N71-22974  
 Sealed electrochemical cell provided with a flexible casing Patent  
 [NASA-CASE-XGS-01513] c 03 N71-23336  
 Electric battery and method for operating same Patent  
 [NASA-CASE-XGS-01674] c 03 N71-29129  
 Frangible electrochemical cell  
 [NASA-CASE-XGS-10010] c 03 N72-15986  
 Porous electrode comprising a bonded stack of pieces of corrugated metal foil  
 [NASA-CASE-GSC-11368-1] c 09 N73-32108  
 Battery testing device --- for testing cells of multiple-cell battery  
 [NASA-CASE-MFS-20761-1] c 44 N74-27519  
 Electrical conductivity cell and method for fabricating the same  
 [NASA-CASE-ARC-10810-1] c 33 N76-19339  
 Multi-cell battery protection system  
 [NASA-CASE-LEW-12039-1] c 44 N78-14625  
 Method and device for the detection of phenol and related compounds --- in an electrochemical cell  
 [NASA-CASE-LEW-12513-1] c 25 N79-22235  
 Electrochemical cell for rebalancing REDOX flow system  
 [NASA-CASE-LEW-13150-1] c 44 N79-26474  
 Catalyst surfaces for the chromous/chromic redox couple  
 [NASA-CASE-LEW-13148-1] c 33 N80-20487  
 Alkaline electrochemical cells and method of making  
 [NASA-CASE-GSC-10349-1] c 44 N82-24645  
 Chemically rechargeable battery  
 [NASA-CASE-NPO-16024-1] c 44 N84-23020

**ELECTROCHEMICAL MACHINING**  
 Apparatus for electrolytically tapered or contoured cavities  
 [NASA-CASE-XNP-08835-1] c 37 N80-14395

**ELECTROCHEMICAL OXIDATION**  
 Method and device for the detection of phenol and related compounds --- in an electrochemical cell  
 [NASA-CASE-LEW-12513-1] c 25 N79-22235  
 Epitaxial thinning process  
 [NASA-CASE-NPO-15786-1] c 76 N84-35112

**ELECTROCHEMISTRY**  
 Electrode for biological recording  
 [NASA-CASE-XMS-02872] c 05 N69-21925  
 Electrochemical detection device --- for use in microbiology  
 [NASA-CASE-LAR-11922-1] c 25 N79-24073

**ELECTRODE FILM BARRIERS**  
 Formulated plastic separators for soluble electrode cells --- rubber-ion transport membranes  
 [NASA-CASE-LEW-12358-1] c 44 N79-17313  
 Liquid crystal light valve structures  
 [NASA-CASE-MSC-20036-1] c 76 N84-22457

**ELECTRODEPOSITION**  
 Method of electrolytically binding a layer of semiconductors together Patent  
 [NASA-CASE-XNP-01959] c 26 N71-23043  
 Method of producing crystalline materials  
 [NASA-CASE-NPO-10440] c 15 N72-21466  
 Electrophoretic sample insertion --- device for uniformly distributing samples in flow path  
 [NASA-CASE-MFS-21395-1] c 25 N74-26948  
 Multitarget sequential sputtering apparatus  
 [NASA-CASE-NPO-13345-1] c 37 N75-19684  
 Method and device for the detection of phenol and related compounds --- in an electrochemical cell  
 [NASA-CASE-LEW-12513-1] c 25 N79-22235

**ELECTRODES**  
 Electrode and insulator with shielded dielectric junction  
 [NASA-CASE-XLE-03778] c 09 N69-21542  
 Electrode for biological recording  
 [NASA-CASE-XMS-02872] c 05 N69-21925  
 Bonding thermoelectric elements to nonmagnetic refractory metal electrodes  
 [NASA-CASE-XGS-04554] c 15 N69-39786  
 Ionization vacuum gauge Patent  
 [NASA-CASE-XNP-00646] c 14 N70-35666

Double optic system for ion engine Patent  
 [NASA-CASE-XNP-02839] c 28 N70-41922  
 Didymium hydrate additive to nickel hydroxide electrodes Patent  
 [NASA-CASE-XGS-03505] c 03 N71-10608  
 Focussing system for an ion source having apertured electrodes Patent  
 [NASA-CASE-XNP-03332] c 09 N71-10618  
 Biomedical electrode arrangement Patent  
 [NASA-CASE-XFR-10856] c 05 N71-11189  
 Electrode construction Patent  
 [NASA-CASE-ARC-10043-1] c 05 N71-11193  
 Pressed disc type sensing electrodes with ion-screening means Patent  
 [NASA-CASE-XMS-04212-1] c 05 N71-12346  
 Method of making electrical contact on silicon solar cell and resultant product Patent  
 [NASA-CASE-XLE-04787] c 03 N71-20492  
 Arc electrode of graphite with ball tip Patent  
 [NASA-CASE-XLE-04788] c 09 N71-22987  
 Sealing member and combination thereof and method of producing said sealing member Patent  
 [NASA-CASE-XMS-01625] c 15 N71-23022  
 Automatic recording McLeod gauge Patent  
 [NASA-CASE-XLE-03280] c 14 N71-23093  
 Flexible conductive disc electrode Patent  
 [NASA-CASE-FRC-10029] c 09 N71-24618  
 Plated electrodes Patent  
 [NASA-CASE-XMS-04213-1] c 09 N71-26002  
 Method and apparatus for attaching physiological monitoring electrodes Patent  
 [NASA-CASE-XFR-07658-1] c 05 N71-26293  
 Field ionization electrodes Patent  
 [NASA-CASE-ERC-10013] c 09 N71-26678  
 Method of making a perspiration resistant biopotential electrode  
 [NASA-CASE-MSC-90153-2] c 05 N72-25120  
 Method of making dry electrodes  
 [NASA-CASE-FRC-10029-2] c 05 N72-25121  
 Compressible biomedical electrode  
 [NASA-CASE-MSC-13648] c 05 N72-27103  
 Method and apparatus for limiting field emission current  
 [NASA-CASE-ERC-10015-2] c 10 N72-27246  
 Coaxial high density, hypervelocity plasma generator and accelerator with ionizable metal disc  
 [NASA-CASE-MFS-20589] c 25 N72-32688  
 Ion thruster with a combination keeper electrode and electron baffle  
 [NASA-CASE-NPO-11880] c 28 N73-24783  
 Wide temperature range electronic device with lead attachment  
 [NASA-CASE-ERC-10224-2] c 09 N73-27150  
 Porous electrode comprising a bonded stack of pieces of corrugated metal foil  
 [NASA-CASE-GSC-11368-1] c 09 N73-32108  
 High powered arc electrodes --- producing solar simulator radiation  
 [NASA-CASE-LEW-11162-1] c 33 N74-12913  
 Method of making porous conductive supports for electrodes --- by electroforming and stacking nickel foils  
 [NASA-CASE-GSC-11367-1] c 44 N74-19692  
 Insulated electrocardiographic electrodes --- without paste electrolyte  
 [NASA-CASE-MSC-14339-1] c 05 N75-24716  
 Readout electrode assembly for measuring biological impedance  
 [NASA-CASE-ARC-10816-1] c 35 N76-24525  
 Gels as battery separators for soluble electrode cells  
 [NASA-CASE-LEW-12364-1] c 44 N77-22606  
 Snap-in compressible biomedical electrode  
 [NASA-CASE-MSC-14623-1] c 52 N77-28717  
 Apparatus for electrolytically tapered or contoured cavities  
 [NASA-CASE-XNP-08835-1] c 37 N80-14395  
 Toroidal cell and battery --- storage battery for high amp-hour load applications  
 [NASA-CASE-LEW-12918-1] c 44 N81-24521  
 Catalyst surfaces for the chromous/chromic redox couple  
 [NASA-CASE-LEW-13148-2] c 44 N81-29524  
 Microwave field effect transistor  
 [NASA-CASE-GSC-12442-1] c 33 N82-20398  
 Method of making formulated plastic separators for soluble electrode cells  
 [NASA-CASE-LEW-12358-2] c 25 N82-21268  
 Multistage depressed collector for dual mode operation --- for microwave transmitting tubes  
 [NASA-CASE-LEW-13282-1] c 33 N82-24415  
 Alkaline electrochemical cells and method of making  
 [NASA-CASE-GSC-10349-1] c 44 N82-24645  
 Closed loop electrostatic system  
 [NASA-CASE-NPO-15553-1] c 33 N83-12335  
 A spillage detector for liquid chromatography systems  
 [NASA-CASE-MSC-20206-1] c 25 N83-29325

Thermionic energy converters  
 [NASA-CASE-LEW-12443-1] c 44 N83-32175  
 Hybrid power semiconductor switch  
 [NASA-CASE-LEW-13922-1] c 33 N84-11389  
 Photoelectrochemical electrodes  
 [NASA-CASE-NPO-15458-1] c 25 N84-12262  
 A multistage spent particle collector and a method for making same  
 [NASA-CASE-LEW-13914-1] c 35 N84-12447  
 Electrodes for solid state devices  
 [NASA-CASE-NPO-15161-1] c 33 N84-16456  
 Method of making a light weight battery plaque  
 [NASA-CASE-LEW-13349-1] c 26 N84-22734  
 Chromium electrodes for REDOX cells  
 [NASA-CASE-LEW-13653-1] c 44 N84-28205  
 Ion sputter textured graphite electrode plates  
 [NASA-CASE-LEW-12919-2] c 70 N84-28565  
 Negative electrode catalyst for the iron-chromium REDOX energy storage system  
 [NASA-CASE-LEW-14028-1] c 44 N84-32909

**ELECTRODIALYSIS**  
 Aqueous alkali metal hydroxide insoluble cellulose ether membrane  
 [NASA-CASE-XGS-05584-1] c 25 N82-29370

**ELECTROFORMING**  
 Method of electroforming a rocket chamber  
 [NASA-CASE-LEW-11118-1] c 20 N74-32919

**ELECTROHYDRAULIC FORMING**  
 Electrical discharge apparatus for forming Patent  
 [NASA-CASE-XMF-00375] c 15 N70-34249

**ELECTROHYDRODYNAMICS**  
 Electrohydrodynamic control valve Patent  
 [NASA-CASE-NPO-10416] c 12 N71-27332

**ELECTROKINETICS**  
 Zeta potential flowmeter Patent  
 [NASA-CASE-XNP-06509] c 14 N71-23226

**ELECTROLYSIS**  
 Passively regulated water electrolysis rocket engine Patent  
 [NASA-CASE-XGS-08729] c 28 N71-14044  
 Combined electrolysis device and fuel cell and method of operation Patent  
 [NASA-CASE-XLE-01645] c 03 N71-20904  
 Polymeric electrolytic hygrometer  
 [NASA-CASE-NPO-13948-1] c 35 N78-25391  
 Trace water sensor  
 [NASA-CASE-NPO-15722-1] c 35 N83-20084

**ELECTROLYTES**  
 Apparatus for measuring swelling characteristics of membranes  
 [NASA-CASE-XGS-03865] c 14 N69-21363  
 Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
 [NASA-CASE-XLE-04526] c 03 N71-11052  
 Sealed electrochemical cell provided with a flexible casing Patent  
 [NASA-CASE-XGS-01513] c 03 N71-23336  
 Compressible biomedical electrode  
 [NASA-CASE-MSC-13648] c 05 N72-27103  
 Solid electrolyte cell  
 [NASA-CASE-NPO-15269-1] c 44 N82-29710  
 Polyvinyl alcohol battery separator containing inert filler  
 [NASA-CASE-LEW-13556-2] c 44 N83-29805  
 Chromium electrodes for REDOX cells  
 [NASA-CASE-LEW-13653-1] c 44 N84-28205

**ELECTROLYTIC CELLS**  
 Method of making emf cell  
 [NASA-CASE-LEW-11359-2] c 03 N72-20034  
 Electrolytic gas operated actuator  
 [NASA-CASE-NPO-11369] c 15 N73-13467  
 Electrolytic cell structure  
 [NASA-CASE-LAR-11042-1] c 33 N75-27252  
 Reconstituted asbestos matrix --- for use in fuel or electrolysis cells  
 [NASA-CASE-MSC-12568-1] c 24 N76-14204  
 Catalyst surfaces for the chromous/chromic redox couple  
 [NASA-CASE-LEW-13148-1] c 33 N80-20487  
 Cell and method for electrolysis of water and anode  
 [NASA-CASE-MSC-16394-1] c 28 N81-24280  
 Toroidal cell and battery --- storage battery for high amp-hour load applications  
 [NASA-CASE-LEW-12918-1] c 44 N81-24521  
 Solid electrolyte cell  
 [NASA-CASE-NPO-15269-1] c 44 N82-29710  
 Discharge cell for optogalvanic spectroscopy having orthogonal relationship between the probe laser and discharge axis  
 [NASA-CASE-NPO-16271-1] c 36 N84-15537

**ELECTROMAGNETIC ABSORPTION**  
 Multiple pass reimaging optical system  
 [NASA-CASE-ARC-10194-1] c 23 N73-20741  
 Method and apparatus for background signal reduction in opto-acoustic absorption measurement  
 [NASA-CASE-NPO-13683-1] c 35 N77-14411

Electromagnetic radiation energy arrangement --- coatings for solar energy absorption and infrared reflection  
[NASA-CASE-WOO-00428-1] c 32 N79-19186

Electromagnetic power absorber  
[NASA-CASE-NPO-13830-1] c 32 N80-14281

**ELECTROMAGNETIC FIELDS**

Tumbler system to provide random motion  
[NASA-CASE-XGS-02437] c 15 N69-21472

Vacuum evaporator with electromagnetic ion steering Patent  
[NASA-CASE-NPO-10331] c 09 N71-26701

Metallic intrusion detector system  
[NASA-CASE-ARC-10265-1] c 10 N72-28240

Low power electromagnetic flowmeter providing accurate zero set  
[NASA-CASE-ARC-10362-1] c 14 N73-32326

Electromagnetic flow rate meter --- for liquid metals  
[NASA-CASE-LEW-10981-1] c 35 N74-21018

Microcomputerized electric field meter diagnostic and calibration system  
[NASA-CASE-KSC-11035-1] c 35 N78-28411

Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591

**ELECTROMAGNETIC HAMMERS**

Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114] c 15 N71-17650

Magnetomotive metal working device Patent  
[NASA-CASE-XMF-03793] c 15 N71-24833

**ELECTROMAGNETIC INTERFERENCE**

Sealed cabinetry Patent  
[NASA-CASE-MS-C-12168-1] c 09 N71-18600

Method of treating the surface of a glass member  
[NASA-CASE-GSC-12110-1] c 27 N77-32308

**ELECTROMAGNETIC MEASUREMENT**

Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent  
[NASA-CASE-XGS-02608] c 07 N70-41678

Microcomputerized electric field meter diagnostic and calibration system  
[NASA-CASE-KSC-11035-1] c 35 N78-28411

Lightning discharge identification system  
[NASA-CASE-KSC-11099-1] c 47 N82-24779

**ELECTROMAGNETIC NOISE**

Parametric amplifiers with idler circuit feedback  
[NASA-CASE-LAR-10253-1] c 09 N72-25258

Audio system with means for reducing noise effects  
[NASA-CASE-NPO-11631] c 10 N73-12244

Filtering device --- removing electromagnetic noise from voice communication signals  
[NASA-CASE-MFS-22729-1] c 32 N76-21366

Submillimeter wave Schottky barrier diode with low series resistance and low noise  
[NASA-CASE-NPO-15935-1] c 33 N83-12334

**ELECTROMAGNETIC PROPULSION**

Hypervelocity gun --- using both electric and chemical energy for projectile propulsion  
[NASA-CASE-XLE-03186-1] c 09 N79-21084

**ELECTROMAGNETIC PULSES**

Laser pulse detection method and apparatus  
[NASA-CASE-NPO-16030-1] c 36 N84-25037

**ELECTROMAGNETIC PUMPS**

Multiducted electromagnetic pump Patent  
[NASA-CASE-NPO-10755] c 15 N71-27084

**ELECTROMAGNETIC RADIATION**

Inflatable radar reflector unit Patent  
[NASA-CASE-XMS-00893] c 07 N70-40063

Circulator having quarter wavelength resonant post and parametric amplifier circuits utilizing the same Patent  
[NASA-CASE-XNP-02140] c 09 N71-23097

Electromagnetic polarization systems and methods Patent  
[NASA-CASE-GSC-10021-1] c 09 N71-24595

Antenna design for surface wave suppression Patent  
[NASA-CASE-XLA-10772] c 07 N71-28980

Multiple reflection conical microwave antenna  
[NASA-CASE-NPO-11661] c 07 N73-14130

Method and apparatus for measuring electromagnetic radiation  
[NASA-CASE-LEW-11159-1] c 14 N73-28488

Hyperthermia heating apparatus --- cancer therapy  
[NASA-CASE-NPO-14549-2] c 52 N82-33996

Inelastic tunnel diodes  
[NASA-CASE-LEW-13833-1] c 33 N83-25983

**ELECTROMAGNETIC SHIELDING**

Method of making shielded flat cable Patent  
[NASA-CASE-MFS-13687] c 09 N71-28691

Wire stripper  
[NASA-CASE-FRC-10111-1] c 37 N79-10419

Shielded conductor cable system  
[NASA-CASE-MS-C-12745-1] c 33 N81-27397

**ELECTROMAGNETIC WAVE FILTERS**

Laser camera and diffusion filter therefore Patent  
[NASA-CASE-NPO-10417] c 16 N71-33410

**ELECTROMAGNETIC WAVE TRANSMISSION**

Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent  
[NASA-CASE-XGS-02608] c 07 N70-41678

Gyrotron transmitting tube  
[NASA-CASE-LEW-13429-1] c 33 N83-31952

**ELECTROMAGNETISM**

Detenting servomotor Patent  
[NASA-CASE-XNP-06936] c 15 N71-24695

Linear magnetic bearing  
[NASA-CASE-GSC-12517-1] c 37 N83-32067

**ELECTROMAGNETS**

Electromagnetic mirror drive system  
[NASA-CASE-XLA-03724] c 14 N69-27461

Solenoid construction Patent  
[NASA-CASE-XNP-01951] c 09 N70-41929

Position sensing device employing misaligned magnetic field generating and detecting apparatus Patent  
[NASA-CASE-XGS-07514] c 23 N71-16099

Safe-arm initiator Patent  
[NASA-CASE-LAR-10372] c 09 N71-18599

Magnetic bearing --- for supplying magnetic fluxes  
[NASA-CASE-GSC-11079-1] c 37 N75-18574

Linear magnetic bearings --- active magnetic suspension of armatures  
[NASA-CASE-GSC-12582-1] c 37 N81-16469

Linear magnetic bearings  
[NASA-CASE-GSC-12582-2] c 37 N83-13460

**ELECTROMECHANICAL DEVICES**

Electromechanical actuator  
[NASA-CASE-XNP-05975] c 15 N69-23185

Bimetallic power controlled actuator  
[NASA-CASE-XNP-09776] c 09 N69-39929

Apparatus for coupling a plurality of ungrounded circuits to a grounded circuit Patent  
[NASA-CASE-XAC-00086] c 09 N70-33182

Apparatus for controlling the velocity of an electromechanical drive for interferometers and the like Patent  
[NASA-CASE-XGS-03532] c 14 N71-17627

Mechanical actuator Patent  
[NASA-CASE-XGS-04548] c 15 N71-24045

Transverse piezoresistance and pinch effect electromechanical transducers Patent  
[NASA-CASE-ERC-10088] c 26 N71-25490

Electromechanical control actuator system Patent  
[NASA-CASE-ERC-10022] c 15 N71-26635

Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334

Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-10503-1] c 09 N72-21248

Ferrofluidic solenoid  
[NASA-CASE-NPO-11738-1] c 09 N73-30185

Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-11389-1] c 33 N77-26387

Rotary electric device  
[NASA-CASE-GSC-12138-1] c 33 N79-20314

Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423

Coal-shale interface detector  
[NASA-CASE-MFS-23720-1] c 43 N80-23711

Magnetic field control --- electromechanical torquing device  
[NASA-CASE-MFS-23828-1] c 33 N82-26569

Variable length strut with longitudinal compliance and locking capability --- constructing truss and beam structures in space and interconnecting an orbit transfer vehicle and a payload  
[NASA-CASE-MFS-25907-1] c 37 N83-31019

Piezoelectric composite materials  
[NASA-CASE-LEW-12582-1] c 76 N83-34796

Memory metal actuator --- for use in electromechanical servocontrol systems  
[NASA-CASE-NPO-15960-1] c 37 N83-36485

Two-dimensional scanner apparatus --- flaw detector in small flat plates  
[NASA-CASE-MFS-25687-1] c 35 N84-22928

**ELECTROMETERS**

Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent  
[NASA-CASE-XAC-02807] c 09 N71-23021

Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 35 N82-31659

**ELECTROMIGRATION**

Electromigration process for the purification of molten silicon during crystal growth  
[NASA-CASE-NPO-14831-1] c 76 N82-30105

**ELECTROMOTIVE FORCES**

Heat activated cell Patent  
[NASA-CASE-LEW-11359] c 03 N71-28579

Three-phase power factor controller with induced EMF sensing  
[NASA-CASE-MFS-25852-1] c 33 N84-33661

**ELECTRON ATTACHMENT**

High resolution threshold photoelectron spectroscopy by electron attachment  
[NASA-CASE-NPO-14078-1] c 72 N80-14877

**ELECTRON BEAM WELDING**

Split welding chamber Patent  
[NASA-CASE-LEW-11531] c 15 N71-14932

Device for preventing high voltage arcing in electron beam welding Patent  
[NASA-CASE-XMF-08522] c 15 N71-19486

**ELECTRON BEAMS**

Electronic beam switching commutator Patent  
[NASA-CASE-XGS-01451] c 09 N71-10677

Method and means for an improved electron beam scanning system Patent  
[NASA-CASE-ERC-10552] c 09 N71-12539

Electron beam instrument for measuring electric fields Patent  
[NASA-CASE-XMF-10289] c 14 N71-23699

Apparatus for determining the deflection of an electron beam impinging on a target Patent  
[NASA-CASE-XMF-06617] c 09 N71-24843

Infrared detectors  
[NASA-CASE-LAR-10728-1] c 14 N73-12445

Electron beam controller --- using magnetic field to refocus spent electron beam in microwave oscillator tube  
[NASA-CASE-LEW-11617-1] c 33 N74-10195

Image tube --- deriving electron beam replica of image  
[NASA-CASE-GSC-11602-1] c 33 N74-21850

Very high intensity light source using a cathode ray tube --- electron beams  
[NASA-CASE-XNP-01296] c 33 N75-27250

Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N80-19425

A linearized traveling wave amplifier with hard limiter characteristics  
[NASA-CASE-LEW-13981-1] c 33 N83-25984

Low energy electron magnetometer using a monoenergetic electron beam  
[NASA-CASE-LAR-12706-1] c 35 N84-12444

**ELECTRON BOMBARDMENT**

Ion thruster cathode  
[NASA-CASE-XLE-07087] c 06 N69-39889

Device for measuring electron-beam intensities and for subjecting materials to electron irradiation in an electron microscope  
[NASA-CASE-XGS-01725] c 14 N69-39982

Electron bombardment ion engine Patent  
[NASA-CASE-XNP-04124] c 28 N71-21822

Electronic cathode having a brush-like structure and a relatively thick oxide emissive coating Patent  
[NASA-CASE-XLE-04501] c 09 N71-23190

Single grid accelerator for an ion thruster  
[NASA-CASE-XLE-10453-2] c 28 N73-27699

Containerless high temperature calorimeter apparatus  
[NASA-CASE-MFS-23923-1] c 35 N81-19426

Mechanical bonding of metal method  
[NASA-CASE-LEW-12941-1] c 26 N83-10170

Diamondlike flake composites  
[NASA-CASE-LEW-13837-1] c 24 N84-22695

Ion sputter textured graphite electrode plates  
[NASA-CASE-LEW-12919-2] c 70 N84-28565

**ELECTRON CAPTURE**

Multistage depressed collector for dual mode operation --- for microwave transmitting tubes  
[NASA-CASE-LEW-13282-1] c 33 N82-24415

**ELECTRON DISTRIBUTION**

Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156

**ELECTRON EMISSION**

Triode thermionic energy converter  
[NASA-CASE-XLE-01015] c 03 N69-39898

**ELECTRON ENERGY**

Low energy electron magnetometer using a monoenergetic electron beam  
[NASA-CASE-LAR-12706-1] c 35 N84-12444

Hollow cathode apparatus  
[NASA-CASE-NPO-15560-1] c 75 N84-16993

**ELECTRON FLUX DENSITY**

Device for measuring electron-beam intensities and for subjecting materials to electron irradiation in an electron microscope  
[NASA-CASE-XGS-01725] c 14 N69-39982

**ELECTRON IRRADIATION**

Ion rocket Patent  
[NASA-CASE-XLE-00376] c 28 N70-37245

**ELECTRON MICROSCOPES**

Device for measuring electron-beam intensities and for subjecting materials to electron irradiation in an electron microscope  
[NASA-CASE-XGS-01725] c 14 N69-39982



## ELECTRON MICROSCOPY

- Method of forming aperture plate for electron microscope  
[NASA-CASE-ARC-10448-2] c 74 N75-12732  
Electron microscope aperture system  
[NASA-CASE-ARC-10448-3] c 35 N77-14408

## ELECTRON MICROSCOPY

- Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996

## ELECTRON PHOTON CASCADES

- Resistive anode image converter  
[NASA-CASE-HON-10876-1] c 33 N76-27473

## ELECTRON PLASMA

- Method and apparatus for producing a plasma Patent  
[NASA-CASE-XLA-00147] c 25 N70-34661

## ELECTRON SOURCES

- Electron microscope aperture system  
[NASA-CASE-ARC-10448-3] c 35 N77-14408

## ELECTRON TRANSFER

- Process for reducing secondary electron emission Patent  
[NASA-CASE-XNP-09469] c 24 N71-25555

## ELECTRON TRANSITIONS

- Diatom infrared gasdynamic laser — for producing different wavelengths  
[NASA-CASE-ARC-10370-1] c 36 N75-31426

## ELECTRON TUBES

- Direct radiation cooling of the collector of linear beam tubes  
[NASA-CASE-XNP-09227] c 15 N69-24319

- Radiant heater having formed filaments Patent  
[NASA-CASE-XLE-00387] c 33 N70-34812

- Ion sputter textured graphite — anode collector plates in electron tube devices  
[NASA-CASE-LEW-12919-1] c 24 N83-10117

- Gyrotron transmitting tube  
[NASA-CASE-LEW-13429-1] c 33 N83-31952

## ELECTRON TUNNELING

- Doped Josephson tunneling junction for use in a sensitive IR detector  
[NASA-CASE-NPO-13348-1] c 33 N75-31332

- Laser activated MTOS microwave device  
[NASA-CASE-NPO-18121-1] c 36 N84-12463

## ELECTRONIC CONTROL

- Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460

- Electronic motor control system Patent  
[NASA-CASE-XMF-01129] c 09 N70-38712

- Phase multiplying electronic scanning system Patent  
[NASA-CASE-NPO-10302] c 10 N71-26142

- Ion beam deflector Patent  
[NASA-CASE-LEW-10689-1] c 28 N71-26173

- Peak acceleration limiter for vibrational tester Patent  
[NASA-CASE-NPO-10556] c 14 N71-27185

- Digital control and information system  
[NASA-CASE-NPO-11016] c 08 N72-31226

- Electronic system for high power load control — solar arrays  
[NASA-CASE-NPO-15358-1] c 33 N83-27126

## ELECTRONIC EQUIPMENT

- Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460

- Pulse activated polarographic hydrogen detector Patent  
[NASA-CASE-XMF-06531] c 14 N71-17575

- Stable amplifier having a stable quiescent point Patent  
[NASA-CASE-XGS-02812] c 09 N71-19466

- Static inverter Patent  
[NASA-CASE-XGS-05289] c 09 N71-19470

- Circulator having quarter wavelength resonant post and parametric amplifier circuits utilizing the same Patent  
[NASA-CASE-XNP-02140] c 09 N71-23097

- Optimum predetection diversity receiving system Patent  
[NASA-CASE-XGS-00740] c 07 N71-23098

- Electronic cathode having a brush-like structure and a relatively thick oxide emissive coating Patent  
[NASA-CASE-XLE-04501] c 09 N71-23190

- Method and apparatus for varying thermal conductivity Patent  
[NASA-CASE-XNP-05524] c 33 N71-24876

- A solid state acoustic variable time delay line Patent  
[NASA-CASE-ERC-10032] c 10 N71-25900

- Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244

- Fringe counter for interferometers Patent  
[NASA-CASE-LAR-10204] c 14 N71-27215

- Temperature regulation circuit Patent  
[NASA-CASE-XNP-02792] c 14 N71-28958

- Method and apparatus for data compression by a decreasing slope threshold test  
[NASA-CASE-NPO-10769] c 08 N72-11171

- Universal environment package with sectional component housing  
[NASA-CASE-KSC-10031] c 15 N72-22486

- Lead attachment to high temperature devices  
[NASA-CASE-ERC-10224] c 09 N72-25261

- Method and apparatus for detecting surface ions on silicon diodes and transistors  
[NASA-CASE-ERC-10325] c 15 N72-25457

- Versatile arithmetic unit for high speed sequential decoder  
[NASA-CASE-NPO-11371] c 08 N73-12177

- Data processor with conditionally supplied clock signals  
[NASA-CASE-GSC-10975-1] c 08 N73-13187

- Heat detection and compositions and devices therefor  
[NASA-CASE-NPO-10764-1] c 14 N73-14428

- Phase control circuits using frequency multiplications for phased array antennas  
[NASA-CASE-ERC-10285] c 10 N73-16206

- Junction range finder  
[NASA-CASE-KSC-10108] c 14 N73-25461

- Electronic strain-level counter  
[NASA-CASE-LAR-10756-1] c 32 N73-26910

- Automatic vehicle location system  
[NASA-CASE-NPO-11850-1] c 32 N74-12912

- Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-11213-1] c 35 N75-15014

- Electronic analog divider  
[NASA-CASE-LEW-11881-1] c 33 N77-17354

- Moisture content and gas sampling device — to test hermetically sealed electronic equipment  
[NASA-CASE-MSC-18866-1] c 35 N82-26634

- Electronic EQUIPMENT TESTS  
Analog to digital converter tester Patent  
[NASA-CASE-XLA-06713] c 14 N71-28991

- Signal conditioner test set  
[NASA-CASE-KSC-10750-1] c 35 N75-12270

- Decommutator patchboard verifier  
[NASA-CASE-KSC-11065-1] c 33 N81-26359

- Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996

- Electronic FILTERS  
Self-tuning bandpass filter  
[NASA-CASE-ARC-10264-1] c 09 N73-20231

- Capacitance multiplier and filter synthesizing network  
[NASA-CASE-NPO-11948-1] c 33 N74-32712

- Notch filter  
[NASA-CASE-MFS-23303-1] c 32 N77-18307

- Electronic MODULES  
Thermal conductive connection and method of making same Patent  
[NASA-CASE-XMS-02087] c 09 N70-41717

- Solar cell submodule Patent  
[NASA-CASE-XNP-05821] c 03 N71-11056

- Heat conductive resiliently compressible structure for space electronics package modules Patent  
[NASA-CASE-MSC-12389] c 33 N71-29052

- Tool for use in lifting pin supported objects  
[NASA-CASE-NPO-13157-1] c 37 N74-32918

- Phase substitution of spare converter for a failed one of parallel phase staggered converters  
[NASA-CASE-NPO-13812-1] c 33 N77-30385

- Method of making encapsulated solar cell modules  
[NASA-CASE-LEW-12185-1] c 44 N78-25528

- Electronically scanned pressure sensor module with in situ calibration capability  
[NASA-CASE-LAR-12230-1] c 35 N79-14347

- Module failure isolation circuit for paralleled inverters — preventing system failure during power conditioning for spacecraft applications  
[NASA-CASE-NPO-14000-1] c 33 N79-24254

- Circuit for automatic load sharing in parallel converter modules  
[NASA-CASE-NPO-14056-1] c 33 N79-24257

- Method and apparatus for fabricating improved solar cell modules  
[NASA-CASE-NPO-14416-1] c 44 N81-14389

- Redundant operation of counter modules  
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### EXHAUST EMISSION

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Method and apparatus for limiting field emission current  
[NASA-CASE-ERC-10015-2] c 10 N72-27246

**FIELD OF VIEW**

Scanner --- photography from a spin stabilized synchronous satellite  
[NASA-CASE-GSC-12032-2] c 43 N82-13465

**FILAMENT WINDING**

Tool attachment for spreading loose elements away from work Patent  
[NASA-CASE-XMF-02107] c 15 N71-10809

Method of making a filament-wound container Patent  
[NASA-CASE-XLE-03803-2] c 15 N71-17651

Method of fabricating a twisted composite superconductor  
[NASA-CASE-LEW-11015] c 26 N73-32571

Method of making reinforced composite structure  
[NASA-CASE-LEW-12619-1] c 24 N77-19171

**FILAMENTS**

Radiant heater having formed filaments Patent  
[NASA-CASE-XLE-00387] c 33 N70-34812

Twisted multifilament superconductor  
[NASA-CASE-LEW-11726-1] c 26 N73-26752

**FILLERS**

Method for making a heat insulating and ablative structure  
[NASA-CASE-XMS-01108] c 15 N69-24322

Intumescent-ablator coatings using endothermic fillers  
[NASA-CASE-ARC-11043-1] c 24 N78-27180

Polymeric compositions and their method of manufacture --- forming filled polymer systems using cryogenics  
[NASA-CASE-NPO-10424-1] c 27 N81-24258

Polyvinyl alcohol battery separator containing inert filler --- alkaline batteries  
[NASA-CASE-LEW-13556-1] c 44 N81-27615

Adjustable high emittance gap filler --- reentry shielding for space shuttle vehicles  
[NASA-CASE-ARC-11310-1] c 27 N82-24339

High performance filleting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490

Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-2] c 44 N83-29805

**FILLING**

Self-charging metering and dispensing device for fluids  
[NASA-CASE-MS-C-20275-1] c 35 N83-17856

**FILM COOLING**

Multislotted film cooled pyrolytic graphite rocket nozzle Patent  
[NASA-CASE-XNP-04389] c 28 N71-20942

Curved film cooling admission tube  
[NASA-CASE-LEW-13174-1] c 34 N83-27144

Covering solid, film cooled surfaces with a duplex thermal barrier coating  
[NASA-CASE-LEW-13450-1] c 31 N83-35177

Vortex generating flow passage design for increased film cooling effectiveness  
[NASA-CASE-LEW-14039-1] c 34 N84-20782

**FILM THICKNESS**

Chemical vapor deposition reactor --- providing uniform film thickness  
[NASA-CASE-NPO-13650-1] c 25 N79-28253

Dual-beam skin friction interferometer  
[NASA-CASE-ARC-11354-1] c 74 N83-21949

Degassifying and mixing apparatus for liquids --- potable water for spacecraft  
[NASA-CASE-MS-C-18936-1] c 35 N83-29652

Epitaxial thinning process  
[NASA-CASE-NPO-15786-1] c 76 N84-35112

**FILMS**

Apparatus for obtaining isotropic irradiation of a specimen  
[NASA-CASE-MFS-20095] c 24 N72-11595



- Method and apparatus for measurement of trap density and energy distribution in dielectric films  
[NASA-CASE-NPO-13443-1] c 76 N76-20994
- FILTERS**  
Filter system for control of outgas contamination in vacuum Patent  
[NASA-CASE-MFS-14711] c 15 N71-26185  
Method for removing oxygen impurities from cesium Patent  
[NASA-CASE-XNP-04262-2] c 17 N71-26773  
Centrifugal lyophobic separator  
[NASA-CASE-LAR-10194-1] c 34 N74-30608
- FILTRATION**  
Recovery of aluminum from composite propellants  
[NASA-CASE-NPO-14110-1] c 28 N81-15119  
Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811  
A solvent resistant, thermoplastic aromatic polyimidesulfone and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-29391  
Method for treating wastewater using microorganisms and vascular aquatic plants  
[NASA-CASE-NSTL-10] c 45 N84-12654
- FINES**  
Acoustic agglomeration methods and apparatus  
[NASA-CASE-NPO-15466-1] c 71 N82-27087
- FINGERS**  
Self-locking telescoping manipulator arm  
[NASA-CASE-MFS-25906-1] c 54 N84-11761
- FINS**  
Thrust and direction control apparatus Patent  
[NASA-CASE-XLE-03583] c 31 N71-17629  
Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft  
[NASA-CASE-LAR-10753-1] c 08 N74-30421
- FIRE EXTINGUISHERS**  
Fire extinguishing apparatus having a slidable mass for a penetrator nozzle --- for penetrating aircraft and shuttle orbiter skin  
[NASA-CASE-KSC-11064-1] c 31 N81-14137  
Synthesis of dawsonites --- for use in fire extinguishing operations  
[NASA-CASE-ARC-11326-1] c 25 N83-33977  
Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118
- FIRE PREVENTION**  
Hydrogen fire blink detector  
[NASA-CASE-MFS-15063] c 14 N72-25412  
Method and apparatus for checking fire detectors  
[NASA-CASE-GSC-11600-1] c 35 N74-21019
- FIREPROOFING**  
Fire resistant coating composition Patent  
[NASA-CASE-GSC-10072] c 18 N71-14014  
Flexible fire retardant foam  
[NASA-CASE-ARC-10180-1] c 28 N72-20767  
Intumescent paint containing nitrile rubber  
[NASA-CASE-ARC-10196-1] c 18 N73-13562  
Intumescent composition, foamed product prepared therewith, and process for making same  
[NASA-CASE-ARC-10304-1] c 18 N73-26572  
Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices  
[NASA-CASE-ARC-10180-1] c 27 N74-12814  
Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405  
Flame retardant spandex type polyurethanes  
[NASA-CASE-MSC-14331-2] c 27 N78-17213  
Fire protection covering for small diameter missiles  
[NASA-CASE-ARC-11104-1] c 15 N79-26100
- FIRES**  
Combustion products generating and metering device  
[NASA-CASE-GSC-11095-1] c 14 N72-10375  
Hydrogen fire detection system with logic circuit to analyze the spectrum of temporal variations of the optical spectrum  
[NASA-CASE-MFS-13130] c 10 N72-17173
- FIRING (IGNITING)**  
Separation nut Patent  
[NASA-CASE-XGS-01971] c 15 N71-15922
- FITTINGS**  
Quick release connector Patent  
[NASA-CASE-XLA-01141] c 15 N71-13789  
Flared tube strainer  
[NASA-CASE-XLA-05056] c 15 N72-11389  
Apparatus for adapting an end effector device remotely controlled manipulator arm  
[NASA-CASE-MFS-25949-1] c 37 N84-11501  
Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860
- FIXED WINGS**  
Supersonic aircraft Patent  
[NASA-CASE-XLA-04451] c 02 N71-12243
- FIXTURES**  
Tool for use in lifting pin supported objects  
[NASA-CASE-NPO-13157-1] c 37 N74-32918  
Apparatus for positioning modular components on a vertical or overhead surface  
[NASA-CASE-LAR-11465-1] c 37 N76-21554  
Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492  
Fixture for environmental exposure of structural materials under compression load  
[NASA-CASE-LAR-12602-1] c 39 N83-32081
- FLAKES**  
Diamondlike flakes  
[NASA-CASE-LEW-13837-2] c 24 N84-22696
- FLAME PROBES**  
Flame detector operable in presence of proton radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410
- FLAME RETARDANTS**  
Flame retardant spandex type polyurethanes  
[NASA-CASE-MSC-14331-2] c 27 N78-17213  
Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments  
[NASA-CASE-MSC-14331-3] c 27 N78-32262  
Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides --- flame retardant foams  
[NASA-CASE-ARC-11107-1] c 25 N80-16116  
Crystalline polyimides --- reinforcing fibers for high temperature composites and adhesives as well as flame retardation  
[NASA-CASE-LAR-12099-1] c 27 N80-16158  
Heat resistant polymers of oxidized styrylphenols  
[NASA-CASE-MSC-14903-3] c 27 N80-24438  
Structural wood panels with improved fire resistance  
[NASA-CASE-ARC-11174-1] c 24 N81-13999  
Heat sealable, flame and abrasion resistant coated fabric --- clothing and containers for space exploration  
[NASA-CASE-MSC-18382-1] c 27 N82-16238  
Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900  
The 1 - (dialkoxyposphoryl)methyl -2,4- and -2,6-dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076  
Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854  
Polymers of phosphonylethylmethyl-2,4- and -2,6-diamino benzenes and the like  
[NASA-CASE-ARC-11506-1] c 27 N84-12313  
Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324  
Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341  
Fire resistant polymers based on 1-((dialkoxyposphoryl)methyl)-2,4- and 2,6-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702  
Fire and heat resistant laminating resins based on maleimido substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697  
Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-3] c 27 N84-22745  
Fire blocking systems for aircraft seat cushions  
[NASA-CASE-ARC-11423-1] c 03 N84-33394
- FLAME SPRAYING**  
Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00302] c 15 N71-16077  
Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10098-1] c 06 N71-24739  
Method of making pressure tight seal for super alloy  
[NASA-CASE-LAR-10170-1] c 37 N74-11301
- FLAME TEMPERATURE**  
Direct heating surface combustor  
[NASA-CASE-LEW-11877-1] c 34 N78-27357
- FLAMES**  
Temperature reducing coating for metals subject to flame exposure Patent  
[NASA-CASE-XLE-00035] c 33 N71-29151  
Modulated hydrogen ion flame detector  
[NASA-CASE-ARC-10322-1] c 35 N76-18403
- FLAMMABILITY**  
Flammability test chamber Patent  
[NASA-CASE-KSC-10126] c 11 N71-24985  
Burn rate testing apparatus  
[NASA-CASE-XMS-09690] c 33 N72-25913  
Compound oxidized styrylphosphine --- flame resistant vinyl polymers  
[NASA-CASE-MSC-14903-2] c 27 N80-10358
- Vitro-violet process for producing flame resistant polyamides and products produced thereby --- protective clothing for high oxygen environments  
[NASA-CASE-MSC-16074-1] c 27 N80-26446  
Fire resistant polymers based on 1-((dialkoxyposphoryl)methyl)-2,4- and 2,6-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702
- FLANGES**  
Cassegrainian antenna subreflector flange for suppressing ground noise Patent  
[NASA-CASE-XNP-00683] c 09 N70-35425  
Anti-glare improvement for optical imaging systems Patent  
[NASA-CASE-NPO-10337] c 14 N71-15604  
Flanged major modular assembly jig  
[NASA-CASE-MSC-19372-1] c 39 N76-31562
- FLAPS (CONTROL SURFACES)**  
Jet aircraft configuration Patent  
[NASA-CASE-XLA-00087] c 02 N70-33332  
Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-36410  
Direct lift control system Patent  
[NASA-CASE-LAR-10249-1] c 02 N71-26110  
Reversed cowl flap inlet thrust augmentor --- with adjustable airfoil  
[NASA-CASE-ARC-10754-1] c 07 N75-24738
- FLARED BODIES**  
Flared tube strainer  
[NASA-CASE-XLA-05056] c 15 N72-11389
- FLASH LAMPS**  
Active lamp pump driver circuit --- optical pumping of laser media  
[NASA-CASE-GSC-12566-1] c 33 N83-34189
- FLAT CONDUCTORS**  
Method of making a molded connector Patent  
[NASA-CASE-XMF-03498] c 15 N71-15986  
Method of making shielded flat cable Patent  
[NASA-CASE-MFS-13687] c 09 N71-28691  
Shielded flat cable  
[NASA-CASE-MFS-13687-2] c 09 N72-22198  
Electrical connector  
[NASA-CASE-MFS-20757] c 09 N72-28225  
Method and apparatus for preparing multiconductor cable with flat conductors  
[NASA-CASE-MFS-10946-1] c 31 N79-21226  
Edge coating of flat wires  
[NASA-CASE-XMF-05757-1] c 31 N79-21227
- FLAT PLATES**  
Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988  
Apparatus for making diamonds  
[NASA-CASE-MFS-20698] c 15 N72-20446  
Heat transfer device  
[NASA-CASE-MFS-22938-1] c 34 N76-18374  
Flat-plate heat pipe  
[NASA-CASE-GSC-11998-1] c 34 N77-32413  
Solar engine  
[NASA-CASE-LAR-12148-1] c 44 N82-24640  
Two-dimensional scanner apparatus --- flaw detector in small flat plates  
[NASA-CASE-MFS-25687-1] c 35 N84-22928
- FLEXIBILITY**  
Weatherproof helix antenna Patent  
[NASA-CASE-XKS-08485] c 07 N71-19493  
Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937  
Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546  
Nozzle extraction process and hand meter for measuring handle  
[NASA-CASE-LAR-12147-1] c 31 N79-11246  
Safety flywheel --- using flexible materials energy storage  
[NASA-CASE-HON-10888-1] c 44 N79-14527
- FLEXIBLE BODIES**  
Flexible back-up bar Patent  
[NASA-CASE-XMF-00722] c 15 N70-40204  
Deflective rod switch with elastic support and sealing means Patent  
[NASA-CASE-XNP-09808] c 09 N71-12518  
Flexible composite membrane Patent  
[NASA-CASE-XNP-08837] c 18 N71-16210  
Self supporting space vehicle Patent  
[NASA-CASE-XLA-00117] c 31 N71-17680  
Extravehicular tunnel suit system Patent  
[NASA-CASE-MSC-12243-1] c 05 N71-24728  
Active vibration isolator for flexible bodies Patent  
[NASA-CASE-LAR-10106-1] c 15 N71-27169  
Fluid impervious barrier including liquid metal alloy and method of making same Patent  
[NASA-CASE-XNP-08881] c 17 N71-28747  
Low cycle fatigue testing machine  
[NASA-CASE-LAR-10270-1] c 32 N72-25877



Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft  
[NASA-CASE-LAR-10753-1] c 08 N74-30421

Internally supported flexible duct joint — device for conducting fluids in high pressure systems  
[NASA-CASE-MFS-19183-1] c 37 N75-19696

Strong thin membrane structure — solar sails  
[NASA-CASE-NPO-14021-2] c 27 N80-16163

**FLEXIBLE WINGS**

Aeroflexible structures  
[NASA-CASE-XLA-06095] c 01 N69-39981

Flexible wing deployment device Patent  
[NASA-CASE-XLA-01220] c 02 N70-41863

Control for flexible parawing Patent  
[NASA-CASE-XLA-06958] c 02 N71-11038

**FLEXING**

Two degree inverted flexure  
[NASA-CASE-ARC-10345-1] c 15 N73-12488

Pressure suit joint analyzer  
[NASA-CASE-ARC-11314-1] c 54 N82-26987

Unidirectional flexural pivot  
[NASA-CASE-GSC-12622-1] c 37 N84-12492

**FLIGHT**

Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692

**FLIGHT ALTITUDE**

Altitude measuring system  
[NASA-CASE-ERC-10412-1] c 09 N73-12211

Terminal guidance system — for guiding aircraft into preselected altitude and/or heading at terminal point  
[NASA-CASE-FRC-10049-1] c 04 N74-13420

Apparatus for measuring an aircraft's speed and height  
[NASA-CASE-LAR-12275-1] c 35 N79-18296

System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075

CAT altitude avoidance system  
[NASA-CASE-NPO-15351-1] c 06 N83-10040

Sidelooking laser altimeter for a flight simulator  
[NASA-CASE-ARC-11312-1] c 36 N83-34304

System for indicating fuel-efficient aircraft altitude  
[NASA-CASE-NPO-15351-2] c 06 N84-34443

**FLIGHT CLOTHING**

Absorbent product and articles made therefrom  
[NASA-CASE-MSC-18223-2] c 54 N84-11758

**FLIGHT CONTROL**

Aircraft instrument Patent  
[NASA-CASE-XLA-00487] c 14 N70-40157

Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073

Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent  
[NASA-CASE-XAC-00048] c 02 N71-29128

Numerical computer peripheral interactive device with manual controls  
[NASA-CASE-NPO-11497] c 08 N73-25206

Solid state controller three axes controller  
[NASA-CASE-MSC-12394-1] c 08 N74-10942

G-load measuring and indicator apparatus — for aircraft  
[NASA-CASE-ARC-10806] c 06 N74-27872

Integrated lift/drag controller for aircraft  
[NASA-CASE-ARC-10456-1] c 05 N75-12930

Deploy/release system — model aircraft flight control  
[NASA-CASE-LAR-11575-1] c 02 N78-16014

Apparatus for damping operator induced oscillations of a controlled system — flight control  
[NASA-CASE-FRC-11041-1] c 33 N82-18493

Aircraft body-axis rotation measurement system  
[NASA-CASE-FRC-11043-1] c 06 N83-33882

Aircraft control position indicator  
[NASA-CASE-LAR-12984-1] c 06 N84-20522

**FLIGHT CREWS**

Survival couch Patent  
[NASA-CASE-XLA-00118] c 05 N70-33285

**FLIGHT INSTRUMENTS**

Aircraft control position indicator  
[NASA-CASE-LAR-12984-1] c 06 N84-20522

Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733

**FLIGHT RECORDERS**

Event recorder Patent  
[NASA-CASE-XLA-01832] c 14 N71-21006

**FLIGHT SAFETY**

Aerial capsule emergency separation device Patent  
[NASA-CASE-XLA-00115] c 03 N70-33343

Apparatus for aiding a pilot in avoiding a midair collision between aircraft  
[NASA-CASE-LAR-10717-1] c 21 N73-30641

Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495

**FLIGHT SIMULATION**

Lunar landing flight research vehicle Patent  
[NASA-CASE-XFR-00929] c 31 N70-34966

Television simulation for aircraft and space flight Patent  
[NASA-CASE-XFR-03107] c 09 N71-19449

Separation simulator Patent  
[NASA-CASE-XKS-04631] c 10 N71-23663

**FLIGHT SIMULATORS**

Centrifuge mounted motion simulator Patent  
[NASA-CASE-XAC-00399] c 11 N70-34815

Means for visually indicating flight paths of vehicles between the Earth, Venus, and Mercury Patent  
[NASA-CASE-XNP-00708] c 14 N70-35394

Wind tunnel test section  
[NASA-CASE-MFS-20509] c 11 N72-17183

Numerical computer peripheral interactive device with manual controls  
[NASA-CASE-NPO-11497] c 08 N73-25206

Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot  
[NASA-CASE-LAR-10550-1] c 09 N74-30597

Vehicle simulator binocular multiplanar visual display system  
[NASA-CASE-ARC-10808-1] c 09 N76-24280

Full color hybrid display for aircraft simulators — landing aids  
[NASA-CASE-ARC-10903-1] c 09 N78-18083

Chromatically corrected virtual image display — lens design for flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N79-14892

Seat cushion to provide realistic acceleration cues to aircraft simulator pilot  
[NASA-CASE-LAR-12149-2] c 09 N79-31228

Chromatically corrected virtual image visual display — reducing eye strain in flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N80-27185

Helmet weight simulator  
[NASA-CASE-LAR-12320-1] c 54 N81-27806

Biocentrifuge system capable of exchanging specimen cages while in operational mode  
[NASA-CASE-MFS-23825-1] c 51 N81-32829

Environmental fog/rain visual display system for aircraft simulators  
[NASA-CASE-ARC-11158-1] c 09 N82-24212

Sidelooking laser altimeter for a flight simulator  
[NASA-CASE-ARC-11312-1] c 36 N83-34304

Simulator scene display evaluation  
[NASA-CASE-ARC-11504-1] c 09 N84-16221

**FLIGHT TESTS**

Air frame drag balance Patent  
[NASA-CASE-XLA-00113] c 14 N70-33386

Dual towline anti-spin device — for flight tests  
[NASA-CASE-LAR-13076-1] c 05 N83-34934

**FLIGHT TRAINING**

Inflight IFR procedures simulator  
[NASA-CASE-KSC-11218-1] c 09 N82-29331

**FLIGHT VEHICLES**

Leading edge curvature based on convective heating Patent  
[NASA-CASE-XLA-01486] c 01 N71-23497

Altitude sensing device  
[NASA-CASE-XMS-01994-1] c 14 N72-17326

**FLIP-FLOPS**

AC logic flip-flop circuits Patent  
[NASA-CASE-XGS-00823] c 10 N71-15910

Stepping motor control circuit Patent  
[NASA-CASE-GSC-10366-1] c 10 N71-18772

Flipflop interrogator and bi-polar current driver Patent  
[NASA-CASE-XGS-03058] c 10 N71-19547

**FLOATING**

Floating baffle to improve efficiency of liquid transfer from tanks  
[NASA-CASE-KSC-10639] c 15 N73-26472

Modification of one man life raft  
[NASA-CASE-LAR-10241-1] c 54 N74-14845

Floating nut retention system  
[NASA-CASE-MSC-16938-1] c 37 N80-23653

**FLOATS**

Magnetically centered liquid column float Patent  
[NASA-CASE-XAC-00030] c 14 N70-34820

**FLOORS**

Elevated waterproof access floor system and method of making the same  
[NASA-CASE-ARC-11363-1] c 31 N83-28281

**FLOTATION**

Rescue litter flotation assembly Patent  
[NASA-CASE-XMS-04170] c 05 N71-22748

**FLOW CHAMBERS**

Multi-chamber controllable heat pipe  
[NASA-CASE-ARC-10199] c 34 N78-17337

**FLOW DIRECTION INDICATORS**

Polarity sensitive circuit Patent  
[NASA-CASE-XNP-00952] c 10 N71-23271

Flow angle sensor and read out system Patent  
[NASA-CASE-XLE-04503] c 14 N71-24864

**FLOW DISTRIBUTION**

Full flow with shut off and selective drainage control valve Patent application  
[NASA-CASE-ERC-10208] c 15 N70-10887

Method of obtaining permanent record of surface flow phenomena Patent  
[NASA-CASE-XLA-01353] c 14 N70-41366

Method of recording a gas flow pattern Patent  
[NASA-CASE-XMF-01779] c 12 N71-20815

Dual wavelength scanning Doppler velocimeter — without perturbation of flow fields  
[NASA-CASE-ARC-10637-1] c 35 N75-16783

Controlled separation combustor — airflow distribution in gas turbine engines  
[NASA-CASE-LEW-11593-1] c 20 N76-14190

Static continuous electrophoresis device  
[NASA-CASE-MFS-25306-1] c 25 N83-13187

Vortex generating flow passage design for increased film cooling effectiveness  
[NASA-CASE-LEW-14039-1] c 34 N84-20782

**FLOW MEASUREMENT**

Flow test device  
[NASA-CASE-XMS-04917] c 14 N69-24257

Nuclear mass flowmeter  
[NASA-CASE-MFS-20485] c 14 N72-11385

Flow velocity and directional instrument  
[NASA-CASE-LAR-10855-1] c 14 N73-13415

Flow measuring apparatus  
[NASA-CASE-LEW-12078-1] c 35 N75-30503

Method for making a hot wire anemometer and product thereof  
[NASA-CASE-ARC-10900-1] c 35 N77-24454

Fluid velocity measuring device  
[NASA-CASE-LAR-11729-1] c 34 N79-12359

Automatic flowmeter calibration system  
[NASA-CASE-KSC-11076-1] c 34 N81-26402

Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12720-1] c 44 N83-21504

Miniature electro-optical air flow sensor  
[NASA-CASE-LAR-13065-1] c 74 N83-25539

Bio-medical flow sensor — intravenous procedures  
[NASA-CASE-MSC-18761-1] c 52 N83-27577

Auto covariance computer  
[NASA-CASE-LAR-12968-1] c 35 N83-34273

Spinning disk calibration method and apparatus for laser Doppler velocimeter  
[NASA-CASE-ARC-11510-1] c 35 N84-25015

**FLOW REGULATORS**

Anti-backlash circuit for hydraulic drive system Patent  
[NASA-CASE-XNP-01020] c 03 N71-12260

Fluid flow restrictor Patent  
[NASA-CASE-NPO-10117] c 15 N71-15608

Fluid flow control valve Patent  
[NASA-CASE-XLE-00703] c 15 N71-15967

Gas regulator Patent  
[NASA-CASE-NPO-10298] c 12 N71-17661

Semitoroidal diaphragm cavitating valve Patent  
[NASA-CASE-XNP-09704] c 12 N71-18615

Temperature sensitive flow regulator Patent  
[NASA-CASE-MFS-14259] c 15 N71-19213

Pneumatic amplifier Patent  
[NASA-CASE-MSC-12121-1] c 15 N71-27147

Gas flow control device  
[NASA-CASE-NPO-11479] c 15 N73-13462

Pressure modulating valve  
[NASA-CASE-MSC-14905-1] c 37 N77-28487

Automotive gas turbine fuel control  
[NASA-CASE-LEW-12785-1] c 37 N78-24545

Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N79-33468

Automatic thermal switch  
[NASA-CASE-GSC-12415-1] c 33 N82-24419

Bio-medical flow sensor — intravenous procedures  
[NASA-CASE-MSC-18761-1] c 52 N83-27577

**FLOW RESISTANCE**

Flow resistivity instrument  
[NASA-CASE-LAR-13053-1] c 43 N83-29783

**FLOW STABILITY**

Continuous detonation reaction engine Patent  
[NASA-CASE-XMF-06926] c 28 N71-22983

Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730

Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12720-1] c 44 N83-21504

**FLOW VELOCITY**

Method for continuous variation of propellant flow and thrust in propulsive devices Patent  
[NASA-CASE-XLE-00177] c 28 N70-40367

Densitometer Patent  
[NASA-CASE-XLE-00688] c 14 N70-41330

Device for suppressing sound and heat produced by high-velocity exhaust jets Patent  
[NASA-CASE-XMF-01813] c 28 N70-41582

Positive displacement flowmeter Patent  
[NASA-CASE-XMF-02822] c 14 N70-41994

- Zeta potential flowmeter Patent  
[NASA-CASE-XNP-06509] c 14 N71-23226
- Method for measuring the characteristics of a gas Patent  
[NASA-CASE-XLA-03375] c 16 N71-24074
- Laser fluid velocity detector Patent  
[NASA-CASE-XAC-10770-1] c 16 N71-24828
- Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546
- Force-balanced, throttle valve Patent  
[NASA-CASE-NPO-10808] c 15 N71-27432
- Flow rate switch  
[NASA-CASE-NPO-10722] c 09 N72-20199
- Flow velocity and directional instrument  
[NASA-CASE-LAR-10855-1] c 14 N73-13415
- Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730
- Wind tunnel flow generation section  
[NASA-CASE-ARC-10710-1] c 09 N75-12969
- Combined dual scatter, local oscillator laser Doppler velocimeter  
[NASA-CASE-ARC-10642-1] c 36 N76-14447
- System for measuring three fluctuating velocity components in a turbulently flowing fluid  
[NASA-CASE-ARC-10974-1] c 34 N77-27345
- Fluid velocity measuring device  
[NASA-CASE-LAR-11729-1] c 34 N79-12359
- Wind tunnel supplementary Mach number minimum section insert  
[NASA-CASE-LAR-12532-1] c 09 N82-11088
- FLOW VISUALIZATION**
- Shock-layer radiation measurement  
[NASA-CASE-XAC-02970] c 14 N69-39896
- Method of recording a gas flow pattern Patent  
[NASA-CASE-XMF-01779] c 12 N71-20815
- Continuous laminar smoke generator --- visualizing flow around wind tunnel models  
[NASA-CASE-LAR-13014-1] c 28 N83-35158
- FLOWMETERS**
- Flow test device  
[NASA-CASE-XMS-04917] c 14 N69-24257
- Positive displacement flowmeter Patent  
[NASA-CASE-XMF-02822] c 14 N70-41994
- Heated element fluid flow sensor Patent  
[NASA-CASE-MSC-12084-1] c 12 N71-17569
- Laser Doppler system for measuring three dimensional vector velocity Patent  
[NASA-CASE-MFS-20386] c 21 N71-19212
- Zeta potential flowmeter Patent  
[NASA-CASE-XNP-06509] c 14 N71-23226
- Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692
- Laser fluid velocity detector Patent  
[NASA-CASE-XAC-10770-1] c 16 N71-24828
- Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546
- Nuclear mass flowmeter  
[NASA-CASE-MFS-20485] c 14 N72-11365
- Respiratory analysis system and method  
[NASA-CASE-MSC-13436-1] c 05 N73-32015
- Low power electromagnetic flowmeter providing accurate zero set  
[NASA-CASE-ARC-10362-1] c 14 N73-32326
- Electromagnetic fluid flow rate meter --- for liquid metals  
[NASA-CASE-LEW-10981-1] c 35 N74-21018
- Leak detector  
[NASA-CASE-MFS-21761-1] c 35 N75-15931
- System for measuring three fluctuating velocity components in a turbulently flowing fluid  
[NASA-CASE-ARC-10974-1] c 34 N77-27345
- Automatic flowmeter calibration system  
[NASA-CASE-KSC-11078-1] c 34 N81-26402
- Self-charging metering and dispensing device for fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856
- FLUID AMPLIFIERS**
- Fluid jet amplifier  
[NASA-CASE-XLE-03512] c 12 N69-21466
- Multistage vortex valve system Patent  
[NASA-CASE-XMF-04709] c 15 N71-15609
- Shear modulated fluid amplifier Patent  
[NASA-CASE-MFS-10412] c 12 N71-17578
- Rocket thrust throttling system  
[NASA-CASE-LEW-10374-1] c 28 N73-13773
- Fluid pressure amplifier and system  
[NASA-CASE-LAR-10868-1] c 33 N74-11050
- Fluid thrust control system --- for liquid propellant rocket engines  
[NASA-CASE-XMF-05964-1] c 20 N79-21124
- FLUID DYNAMICS**
- Degassing and mixing apparatus for liquids --- potable water for spacecraft  
[NASA-CASE-MSC-18936-1] c 35 N83-29652
- FLUID FILLED SHELLS**
- Method and apparatus for producing gas-filled hollow spheres --- target pellets for inertial confinement fusion  
[NASA-CASE-NPO-14596-3] c 31 N83-31896
- FLUID FILMS**
- Journal bearings --- for lubricant films  
[NASA-CASE-LEW-11076-1] c 37 N74-21061
- Fluid journal bearings  
[NASA-CASE-LEW-11076-4] c 37 N76-15461
- Fluid seal for rotating shafts  
[NASA-CASE-LEW-11676-1] c 37 N76-22541
- FLUID FILTERS**
- Liquid-gas separator for zero gravity environment Patent  
[NASA-CASE-XMS-01492] c 05 N70-41297
- High pressure filter Patent  
[NASA-CASE-XNP-00732] c 28 N70-41447
- Water separating system Patent  
[NASA-CASE-XMS-13052] c 14 N71-20427
- Fluid control apparatus and method  
[NASA-CASE-LAR-11110-1] c 34 N75-26282
- Filter regeneration systems --- a system for regenerating a system filter in a fluid flow line  
[NASA-CASE-MSC-14273-1] c 34 N75-33342
- Quick disconnect filter coupling  
[NASA-CASE-MFS-22323-1] c 37 N76-14463
- Fluid sample collection and distribution system --- qualitative analysis of aqueous samples from several points  
[NASA-CASE-MSC-16841-1] c 34 N79-24285
- Air removal device --- life support systems  
[NASA-CASE-XLA-8914-2] c 25 N82-21269
- Rapid, quantitative determination of bacteria in water --- adenosine triphosphate  
[NASA-CASE-GSC-12158-1] c 51 N83-27569
- FLUID FLOW**
- Fluid jet amplifier  
[NASA-CASE-XLE-03512] c 12 N69-21466
- Pneumatic system for controlling and actuating pneumatic cyclic devices  
[NASA-CASE-XMS-04843] c 03 N69-21469
- Full flow with shut off and selective drainage control valve Patent application  
[NASA-CASE-ERC-10208] c 15 N70-10867
- Conical valve plug Patent  
[NASA-CASE-XLE-00715] c 15 N70-34859
- Pressure regulating system Patent  
[NASA-CASE-XNP-00450] c 15 N70-38603
- Antiflutter ball check valve Patent  
[NASA-CASE-XNP-01152] c 15 N70-41811
- Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01609] c 14 N71-10500
- Multistage vortex valve system Patent  
[NASA-CASE-XMF-04709] c 15 N71-15609
- Heated element fluid flow sensor Patent  
[NASA-CASE-MSC-12084-1] c 12 N71-17569
- Multiple orifice throttle valve Patent  
[NASA-CASE-XNP-09698] c 15 N71-18580
- Fluid flow meter with comparator reference means Patent  
[NASA-CASE-XGS-01331] c 14 N71-22996
- Pressure transducer calibrator Patent  
[NASA-CASE-XNP-01660] c 14 N71-23036
- Dual latching solenoid valve Patent  
[NASA-CASE-XMS-05890] c 09 N71-23191
- Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546
- Electrohydrodynamic control valve Patent  
[NASA-CASE-NPO-10416] c 12 N71-27332
- Fluid jet amplifier Patent  
[NASA-CASE-XLE-09341] c 12 N71-28741
- Nuclear mass flowmeter  
[NASA-CASE-MFS-20485] c 14 N72-11365
- Flow rate switch  
[NASA-CASE-NPO-10722] c 09 N72-20199
- Torsional disconnect unit  
[NASA-CASE-NPO-10704] c 15 N72-20445
- Capacitive tank gaging apparatus being independent of liquid distribution  
[NASA-CASE-MFS-21629] c 14 N72-22442
- Cryogenic feedthrough  
[NASA-CASE-LAR-10031] c 15 N72-22484
- Geysering inhibitor for vertical cryogenic transfer pipe  
[NASA-CASE-KSC-10615] c 15 N73-12486
- Pump for delivering heated fluids  
[NASA-CASE-NPO-11417] c 15 N73-24513
- Flow control valve --- for high temperature fluids  
[NASA-CASE-NPO-11951-1] c 37 N74-21065
- Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730
- Internally supported flexible duct joint --- device for conducting fluids in high pressure systems  
[NASA-CASE-MFS-19193-1] c 37 N75-19686
- Flow measuring apparatus  
[NASA-CASE-LEW-12078-1] c 35 N75-30503
- Filter regeneration systems --- a system for regenerating a system filter in a fluid flow line  
[NASA-CASE-MSC-14273-1] c 34 N75-33342
- Combined dual scatter, local oscillator laser Doppler velocimeter  
[NASA-CASE-ARC-10642-1] c 36 N76-14447
- Externally supported internally stabilized flexible duct joint  
[NASA-CASE-MFS-19194-1] c 37 N76-14460
- Vortex generator for controlling the dispersion of effluents in a flowing liquid  
[NASA-CASE-LAR-12045-1] c 34 N77-24423
- Pseudo-backscatter laser Doppler velocimeter employing antiparallel-reflector in the forward direction  
[NASA-CASE-ARC-10970-1] c 36 N77-25501
- Accumulator  
[NASA-CASE-MFS-19287-1] c 34 N77-30399
- Apparatus for measuring a sorbate dispersed in a fluid stream  
[NASA-CASE-ARC-10896-1] c 35 N78-19465
- Flow compensating pressure regulator  
[NASA-CASE-LEW-12718-1] c 34 N78-25351
- Fluid valve assembly  
[NASA-CASE-MSC-12731-1] c 37 N78-25426
- Positive isolation disconnect  
[NASA-CASE-MSC-16043-1] c 37 N79-11402
- Fluid velocity measuring device  
[NASA-CASE-LAR-11729-1] c 34 N79-12359
- Hot foil transducer skin friction sensor  
[NASA-CASE-LAR-12321-1] c 35 N82-24470
- Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680
- FLUID INJECTION**
- Apparatus for igniting solid propellants Patent  
[NASA-CASE-XLE-00207] c 28 N70-33375
- Method of igniting solid propellants Patent  
[NASA-CASE-XLE-01988] c 27 N71-15634
- Aerodynamic spike nozzle Patent  
[NASA-CASE-XGS-01143] c 31 N71-15647
- Process of forming particles in a cryogenic path Patent  
[NASA-CASE-NPO-10250] c 23 N71-16212
- Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
[NASA-CASE-XMS-01905] c 12 N71-21089
- Tertiary flow injection thrust vectoring system Patent  
[NASA-CASE-MFS-20831] c 28 N71-29153
- Programmable physiological infusion  
[NASA-CASE-ARC-10447-1] c 52 N74-22771
- FLUID JETS**
- Propeller blade loading control Patent  
[NASA-CASE-XAC-00139] c 02 N70-34856
- FLUID LOGIC**
- Logic AND gate for fluid circuits Patent  
[NASA-CASE-XLA-07391] c 12 N71-17579
- FLUID MECHANICS**
- Leak detector Patent  
[NASA-CASE-LAR-10323-1] c 12 N71-17573
- Parallel-plate viscometer with double diaphragm suspension  
[NASA-CASE-NPO-11387] c 14 N73-14429
- Modified face seal for positive film stiffness  
[NASA-CASE-LEW-12989-1] c 37 N82-12442
- FLUID POWER**
- Fluid power transmission Patent  
[NASA-CASE-XMS-01445] c 12 N71-16031
- Fluid power transmitting gas bearing Patent  
[NASA-CASE-ERC-10097] c 15 N71-28465
- FLUID PRESSURE**
- Flow compensating pressure regulator  
[NASA-CASE-LEW-12718-1] c 34 N78-25351
- Self-stabilizing radial face seal  
[NASA-CASE-LEW-12991-1] c 37 N81-24442
- Pressure letdown method and device for coal conversion systems  
[NASA-CASE-NPO-15100-1] c 44 N84-14583
- FLUID ROTOR GYROSCOPES**
- Piezoelectric pump Patent  
[NASA-CASE-XNP-05429] c 26 N71-21824
- FLUID SWITCHING ELEMENTS**
- Booster tank system Patent  
[NASA-CASE-MSC-12390] c 27 N71-29155
- FLUID TRANSMISSION LINES**
- Low heat leak connector for cryogenic system  
[NASA-CASE-XLE-02367-1] c 31 N79-21225
- FLUIDIC CIRCUITS**
- Technique of duplicating fragile core  
[NASA-CASE-XLA-07829] c 15 N72-16329
- Flow measuring apparatus  
[NASA-CASE-LEW-12078-1] c 35 N75-30503
- FLUIDICS**
- Fluidic-thermochromic display device Patent  
[NASA-CASE-ERC-10031] c 12 N71-18603

- Plasma fluidic hybrid display Patent  
[NASA-CASE-ERC-10100] c 09 N71-33519
- Fluidic proportional thruster system  
[NASA-CASE-ARC-10106-1] c 28 N72-22769
- Fluid pressure amplifier and system  
[NASA-CASE-LAR-10868-1] c 33 N74-11050
- Fluid valve assembly  
[NASA-CASE-MSC-12731-1] c 37 N78-25426

**FLUIDIZED BED PROCESSORS**

- Continuous coal processing method  
[NASA-CASE-NPO-13758-2] c 31 N81-15154
- Fluidized bed coal combustion reactor  
[NASA-CASE-NPO-14273-1] c 25 N82-11144
- Solar heated fluidized bed gasification system  
[NASA-CASE-NPO-15071-1] c 44 N82-16475
- Use of glow discharge in fluidized beds  
[NASA-CASE-ARC-11245-1] c 28 N82-18401
- Fluidized bed coal liquefaction  
[NASA-CASE-NPO-15891-1] c 25 N83-36120
- Fluidized bed liquefaction of biomass  
[NASA-CASE-NPO-15907-1] c 25 N83-36121
- Fluidized bed desulfurization  
[NASA-CASE-NPO-15924-1] c 25 N83-36122
- Fluidized bed gasification of biomass to methane  
[NASA-CASE-NPO-15903-1] c 44 N84-12635

**FLUIDS**

- Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754
- Bacteria detection instrument and method  
[NASA-CASE-GSC-11533-1] c 14 N73-13435
- Low outgassing polydimethylsiloxane material and preparation thereof  
[NASA-CASE-GSC-11358-1] c 06 N73-26100
- Fluid mass sensor for a zero gravity environment  
[NASA-CASE-MSC-14653-1] c 35 N77-19385

**FLUORESCENCE**

- Apparatus for producing three-dimensional recordings of fluorescence spectra Patent  
[NASA-CASE-XGS-01231] c 14 N70-41676
- Internal work light Patent  
[NASA-CASE-XKS-05932] c 09 N71-26787
- Chromato-fluorographic drug detector — device for detecting and recording fluorescent properties of materials  
[NASA-CASE-ARC-10633-1] c 25 N74-26947
- Fluorescence detector for monitoring atmospheric pollutants  
[NASA-CASE-NPO-13231-1] c 45 N75-27585
- Fluorescent radiation converter  
[NASA-CASE-GSC-12528-1] c 74 N81-24900

**FLUORIDES**

- Self-lubricating fluoride metal composite materials Patent  
[NASA-CASE-XLE-08511] c 18 N71-23710
- Corrosion resistant beryllium Patent  
[NASA-CASE-LEW-10327] c 17 N71-33408
- Perfluoro polyether acyl fluorides  
[NASA-CASE-NPO-10765] c 06 N72-20121

**FLUORINATION**

- Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-2] c 06 N72-27151
- Fluorinated esters of polycarboxylic acids  
[NASA-CASE-MFS-21040-1] c 06 N73-30098

**FLUORINE**

- Reaction of fluorine with polyperfluoropolyenes  
[NASA-CASE-NPO-10862] c 06 N72-22107
- Process for the preparation of fluorine containing crosslinked elastomeric polytriazine and product so produced  
[NASA-CASE-ARC-11248-1] c 27 N81-17259

**FLUORINE COMPOUNDS**

- Fluorine-containing polyformals  
[NASA-CASE-XMF-06900-1] c 27 N79-21191
- Precision heat formed of tetrafluoroethylene tubing  
[NASA-CASE-MSC-18430-1] c 37 N82-24491

**FLUORO COMPOUNDS**

- New polymers of perfluorobutadiene and method of manufacture Patent application  
[NASA-CASE-NPO-10863] c 06 N70-11251
- Method of polymerizing perfluorobutadiene Patent application  
[NASA-CASE-NPO-10447] c 06 N70-11252
- Fluorohydroxy ethers  
[NASA-CASE-MFS-10507] c 06 N73-30101
- Highly fluorinated polymers  
[NASA-CASE-MFS-11492] c 06 N73-30102
- Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-1] c 06 N73-33076
- Utilization of oxygen difluoride for syntheses of fluoropolymers  
[NASA-CASE-NPO-12061-1] c 27 N76-16228
- The 1,1,1-triary-2,2,2-trifluoroethanes and process for their synthesis  
[NASA-CASE-ARC-11097-1] c 25 N82-24312

**FLUOROCARBONS**

- Electrically conductive fluorocarbon polymer  
[NASA-CASE-XLE-06774-2] c 06 N72-25150

**FLUOROPOLYMERS**

- Perfluoroalkyl polytriazines containing pendent iododifluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016
- Texturing polymer surfaces by transfer casting — cardiovascular prosthesis  
[NASA-CASE-LEW-13120-1] c 27 N82-28440
- Surface texturing of fluoropolymers  
[NASA-CASE-LEW-13028-1] c 27 N82-33521

**FLUTTER**

- Antiflutter ball check valve Patent  
[NASA-CASE-XNP-01152] c 15 N70-41811
- Suppression of flutter  
[NASA-CASE-LAR-10682-1] c 02 N73-26004
- Decoupler pylon: wing/store flutter suppressor  
[NASA-CASE-LAR-12468-1] c 08 N82-32373

**FLUTTER ANALYSIS**

- Model mount system for testing flutter  
[NASA-CASE-LAR-12950-1] c 09 N84-34448

**FLUX (RATE)**

- Two axis fluxgate magnetometer Patent  
[NASA-CASE-GSC-10441-1] c 14 N71-27325
- Apparatus for measuring charged particle beam  
[NASA-CASE-MFS-25641-1] c 72 N84-28575

**FLUX DENSITY**

- Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent  
[NASA-CASE-XLE-00243] c 14 N70-38602
- Apparatus for measuring charged particle beam  
[NASA-CASE-MFS-25641-1] c 72 N84-28575

**FLUXES**

- Solder flux which leaves corrosion-resistant coating Patent  
[NASA-CASE-XNP-03459-2] c 18 N71-15688
- Soldering with solder flux which leaves corrosion resistant coating Patent  
[NASA-CASE-XNP-03459] c 15 N71-21078

**FLYWHEELS**

- Energy storage apparatus  
[NASA-CASE-GSC-12030-1] c 44 N78-24608
- Rotatable mass for a flywheel  
[NASA-CASE-MFS-23051-1] c 37 N79-10422
- Safety flywheel — using flexible materials energy storage  
[NASA-CASE-HQN-10888-1] c 44 N79-14527
- Method of manufacture of bonded fiber flywheel — fiberglass-epoxy  
[NASA-CASE-MFS-23874-1] c 24 N81-29163
- Bi-directional control system for energy flow in a solar powered flywheel  
[NASA-CASE-MFS-25978-1] c 44 N84-32913

**FOAMS**

- Foam generator Patent  
[NASA-CASE-XLA-00838] c 03 N70-38778
- Method for continuous variation of propellant flow and thrust in propulsive devices Patent  
[NASA-CASE-XLE-00177] c 28 N70-40367
- Filament wound container Patent  
[NASA-CASE-XLE-03803] c 15 N71-23816
- Novel polycarboxylic prepolymeric materials and polymers thereof Patent  
[NASA-CASE-NPO-10596] c 06 N71-25929
- Thermally activated foaming compositions Patent  
[NASA-CASE-LAR-10373-1] c 18 N71-26155
- Method of making a solid propellant rocket motor Patent  
[NASA-CASE-XLA-04126] c 28 N71-26779
- Thickness measuring and injection device Patent  
[NASA-CASE-MFS-20261] c 14 N71-27005
- Method of making foamed materials in zero gravity  
[NASA-CASE-XMF-09902] c 15 N72-11387
- Polyimide foam for the thermal insulation and fire protection  
[NASA-CASE-ARC-10464-1] c 27 N74-12812
- Intumescent composition, foamed product prepared therewith and process for making same  
[NASA-CASE-ARC-10304-2] c 27 N74-27037
- Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles  
[NASA-CASE-ARC-11008-1] c 27 N78-31232
- Ambient cure polyimide foams — thermal resistant foams  
[NASA-CASE-ARC-11170-1] c 27 N79-11215
- Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides — flame retardant foams  
[NASA-CASE-ARC-11107-1] c 25 N80-18116
- Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903
- Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297
- Impacting device for testing insulation  
[NASA-CASE-MFS-25862-2] c 37 N84-33807

**FOCI**

- High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898

**FOCUSING**

- X-ray reflection collimator adapted to focus X-radiation directly on a detector Patent  
[NASA-CASE-XHQ-04106] c 14 N70-40240
- Focussing system for an ion source having apertured electrodes Patent  
[NASA-CASE-XNP-03332] c 09 N71-10618
- Petzval type objective including field shaping lens Patent  
[NASA-CASE-GSC-10700] c 23 N71-30027
- Absolute focus lock for microscopes  
[NASA-CASE-LAR-10184] c 14 N72-22445
- Electron beam controller — using magnetic field to refocus spent electron beam in microwave oscillator tube  
[NASA-CASE-LEW-11617-1] c 33 N74-10195
- Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-11213-1] c 35 N75-15014
- Multiple focusing collimator — for scanning small near radiation sources  
[NASA-CASE-MFS-20932-1] c 35 N75-19616
- RF beam center location method and apparatus for power transmission system  
[NASA-CASE-NPO-13821-1] c 44 N78-28594
- Scanning afocal laser velocimeter projection lens system  
[NASA-CASE-LAR-12328-1] c 36 N82-32712
- Gyrotron transmitting tube  
[NASA-CASE-LEW-13429-1] c 33 N83-31952

**FOG**

- Anti-fog composition — for prevention of fogging on surfaces such as space helmet visors and windshields  
[NASA-CASE-MSC-13530-2] c 23 N75-14834
- Environmental fog/rain visual display system for aircraft simulators  
[NASA-CASE-ARC-11158-1] c 09 N82-24212
- Warm fog dissipation using large volume water sprays  
[NASA-CASE-MFS-25962-1] c 09 N84-32398

**FOILS (MATERIALS)**

- Foil seal  
[NASA-CASE-XLE-05130] c 15 N69-21382
- Method of making an insulation foil  
[NASA-CASE-LEW-11484-1] c 24 N75-33181
- Partial interlaminar separation system for composites  
[NASA-CASE-LAR-12065-1] c 24 N81-14000
- Method of making a partial interlaminar separation composite system  
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Fluidized bed gasification of biomass to methane  
[NASA-CASE-NPO-15903-1] c 44 N84-12635

**FUEL PUMPS**

Fuel injection pump for internal combustion engines Patent  
[NASA-CASE-MSC-12139-1] c 28 N71-14058

**FUEL SYSTEMS**

Propellant feed isolator Patent  
[NASA-CASE-LEW-10210-1] c 28 N71-26781

System for preconditioning a combustible vapor  
[NASA-CASE-NPO-12072] c 28 N72-22772

Supersonic-combustion rocket  
[NASA-CASE-LEW-11058-1] c 20 N74-13502

Fuel combustor  
[NASA-CASE-LEW-12137-1] c 25 N78-10224

Fuel delivery system including heat exchanger means  
[NASA-CASE-LEW-12793-1] c 37 N79-11403

Supercritical fuel injection system  
[NASA-CASE-LEW-12990-1] c 07 N81-29129

Apparatus for improving the fuel efficiency of a gas turbine engine  
[NASA-CASE-LEW-13142-1] c 07 N83-36029

**FUEL TANK PRESSURIZATION**

Venting vapor apparatus Patent  
[NASA-CASE-XLE-00288] c 15 N70-34247

Automatic pump Patent  
[NASA-CASE-XNP-04731] c 15 N71-24042

Propellant tank pressurization system Patent  
[NASA-CASE-XNP-00650] c 27 N71-28929

**FUEL TANKS**

Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988

Flexible ring slosh damping baffle Patent  
[NASA-CASE-LAR-10317-1] c 32 N71-16103

Buoyant anti-slosh system Patent  
[NASA-CASE-XLA-04605] c 32 N71-16106

Instrument for measuring the dynamic behavior of liquids  
Patent  
[NASA-CASE-XLA-05541] c 12 N71-26387

Electrical apparatus for detection of thermal decomposition of insulation Patent  
[NASA-CASE-XMF-03968] c 14 N71-27186

High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523

Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297

Tanker orbit transfer vehicle and method  
[NASA-CASE-MSC-20543-1] c 18 N84-22610

Volumetric fuel quantity gauge  
[NASA-CASE-LAR-13147-1] c 35 N84-32787

**FUEL VALVES**

Injector-valve device Patent  
[NASA-CASE-XLE-00303] c 15 N70-36535

Semitoroidal diaphragm cavitating valve Patent  
[NASA-CASE-XNP-09704] c 12 N71-18615

Filler valve Patent  
[NASA-CASE-NPO-01747] c 15 N71-23024

Combination automatic-starting electrical plasma torch and gas shutoff valve --- for satellite attitude control  
[NASA-CASE-XLE-10717] c 37 N75-29426

**FUELS**

Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-3] c 28 N81-14103

**FUNCTION GENERATORS**

Line following servosystem Patent  
[NASA-CASE-XAC-00001] c 15 N71-28952

Digital quasi-exponential function generator  
[NASA-CASE-NPO-11130] c 08 N72-20176

Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-10503-1] c 09 N72-21248

Function generator for synthesizing complex vibration mode patterns  
[NASA-CASE-LAR-10310-1] c 10 N73-20253

Derivation of a tangent function using an integrated circuit four-quadrant multiplier  
[NASA-CASE-MSC-13907-1] c 10 N73-26230

**FURLABLE ANTENNAS**

Unfurlable structure including coiled strips thrust launched upon tension release Patent  
[NASA-CASE-HQN-00937] c 07 N71-28979

Singly-curved reflector for use in high-gain antennas  
[NASA-CASE-NPO-11361] c 07 N72-32169

Furlable antenna --- antenna design  
[NASA-CASE-NPO-13553-1] c 33 N76-32457

**FURNACES**

High-speed infrared furnace  
[NASA-CASE-XLE-10466] c 17 N69-25147

Black-body furnace Patent  
[NASA-CASE-XLE-01399] c 33 N71-15625

Induction furnace with perforated tungsten foil shielding Patent  
[NASA-CASE-XLE-04026] c 14 N71-23267

High temperature furnace for melting materials in space  
[NASA-CASE-MFS-20710] c 11 N72-23215

High temperature strain gage calibration fixture  
[NASA-CASE-LAR-11500-1] c 35 N76-24523

Exothermic furnace module  
[NASA-CASE-MFS-25707-1] c 35 N82-26631

Apparatus and method for heating a material in a transparent ampoule --- crystal growth  
[NASA-CASE-MFS-25436-1] c 27 N83-36220

**FUSELAGES**

Fuselage structure using advanced technology fiber reinforced composites  
[NASA-CASE-LAR-11688-1] c 24 N82-26384

Adapter for mounting a microphone flush with the external surface of the skin of a pressurized aircraft  
[NASA-CASE-FRC-11072-1] c 05 N83-27975

Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400

**FUSION (MELTING)**

Bonding graphite with fused silver chloride  
[NASA-CASE-XGS-00963] c 15 N69-39735

Method for fiberizing ceramic materials Patent  
[NASA-CASE-XNP-00597] c 18 N71-23088

Induction heating gun  
[NASA-CASE-LAR-12540-2] c 27 N82-24345

One-step dual purpose joining technique  
[NASA-CASE-LAR-12595-1] c 33 N82-26571

Absorbable-susceptor joining of ceramic surfaces  
[NASA-CASE-NPO-15640-1] c 27 N84-22748

Multicolor printing plate joining  
[NASA-CASE-LEW-13598-1] c 35 N84-22930

**FUSION WELDING**

Method for producing a solar cell having an integral protective covering  
[NASA-CASE-XGS-04531] c 03 N69-24267

Weld control system using thermocouple wire Patent  
[NASA-CASE-MFS-06074] c 15 N71-20393

## G

## GADOLINIUM

Method of making a silicon semiconductor device Patent  
[NASA-CASE-XLE-02792] c 26 N71-10607

Gd or Sm doped silicon semiconductor composition Patent  
[NASA-CASE-XLE-10715] c 26 N71-23292

## GALLIUM

Floating two force component measuring device Patent  
[NASA-CASE-XAC-04885] c 14 N71-23790

## GALLIUM ARSENIDES

GaAs solar detector using manganese as a doping agent Patent  
[NASA-CASE-XNP-01328] c 26 N71-18064

Simple method of making photovoltaic junctions Patent  
[NASA-CASE-XNP-01960] c 09 N71-23027

Method of changing the conductivity of vapor deposited gallium arsenide by the introduction of water into the vapor deposition atmosphere Patent  
[NASA-CASE-XNP-01961] c 26 N71-29156

Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-26043

Vapor deposition apparatus --- semiconductors and gallium arsenides  
[NASA-CASE-HQN-10462] c 25 N75-29192

Microwave field effect transistor  
[NASA-CASE-GSC-12442-1] c 33 N82-20398

Total immersion crystal growth --- using a melt covered with an encapsulating fluid  
[NASA-CASE-NPO-15800-1] c 76 N83-15149

GaAs Schottky barrier photo-responsive device and method of fabrication --- photovoltaic cells  
[NASA-CASE-GSC-12816-1] c 76 N83-30268

## GALVANIC SKIN RESPONSE

Method and apparatus for attaching physiological monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293

## GAMMA RAY SPECTROMETERS

Low intensity X-ray and gamma-ray spectrometer  
[NASA-CASE-GSC-12587-1] c 35 N82-32659

Method and apparatus for mapping the distribution of chemical elements in an extended medium  
[NASA-CASE-GSC-12808-1] c 45 N83-20446

## GAMMA RAYS

Compton scatter attenuation gamma ray spectrometer  
[NASA-CASE-MFS-21441-1] c 14 N73-30392

Low intensity X-ray and gamma-ray imaging device --- fiber optics  
[NASA-CASE-GSC-12263-1] c 74 N79-20857

The 3-dimensional and tomographic imaging device for X-ray and gamma-ray emitting objects  
[NASA-CASE-GSC-12851-1] c 35 N83-20083

Real-time 3-D X-ray and gamma-ray viewer  
[NASA-CASE-GSC-12640-1] c 74 N84-11920

## GANTRY CRANES

Mechanically extendible telescoping boom  
[NASA-CASE-NPO-11118] c 03 N72-25021

## GAPS

Electromagnetic transducer recording head having a laminated core section and tapered gap  
[NASA-CASE-NPO-10711-1] c 35 N77-21392

Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709

## GARMENTS

Biomedical electrode arrangement Patent  
[NASA-CASE-XFR-10856] c 05 N71-11189

Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546

Spacesuit torso closure  
[NASA-CASE-ARC-11100-1] c 54 N78-31736

Urine collection apparatus --- feminine hygiene  
[NASA-CASE-MSC-18381-1] c 52 N81-28740

Thermal garment  
[NASA-CASE-XMS-03694-1] c 54 N82-29002

## GAS ANALYSIS

Gas analyzer for bi-gaseous mixtures Patent  
[NASA-CASE-XLA-01131] c 14 N71-10774

Microbalance including crystal oscillators for measuring contaminants in a gas system Patent  
[NASA-CASE-NPO-10144] c 14 N71-17701

Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent  
[NASA-CASE-XNP-01056] c 14 N71-23041

Dual resonant cavity absorption cell Patent  
[NASA-CASE-LAR-10305] c 14 N71-26137

Ion microprobe mass spectrometer for analyzing fluid materials Patent  
[NASA-CASE-ERC-10014] c 14 N71-28863

Nondispersive gas analyzing method and apparatus wherein radiation is serially passed through a reference and unknown gas  
[NASA-CASE-ARC-10308-1] c 06 N72-31141

Method and apparatus for determining the contents of contained gas samples  
[NASA-CASE-GSC-10903-1] c 14 N73-12444

Coaxial anode wire for gas radiation counters  
[NASA-CASE-GSC-11492-1] c 35 N74-26949

Fast scan control for deflection type mass spectrometers  
[NASA-CASE-LAR-11428-1] c 35 N74-34857

NDIR gas analyzer based on absorption modulation ratios for known and unknown samples  
[NASA-CASE-ARC-10802-1] c 35 N75-30502

Stack plume visualization system  
[NASA-CASE-LAR-11675-1] c 45 N76-17656

Nulling device for detection of trace gases by NDIR absorption  
[NASA-CASE-ARC-10760-1] c 25 N76-22323

Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples  
[NASA-CASE-MSC-14428-1] c 23 N77-17161

Fluid sampling device  
[NASA-CASE-GSC-12143-1] c 35 N77-32456

Stark cell optoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015

Stark effect spectrophone for continuous absorption spectra monitoring --- a technique for gas analysis  
[NASA-CASE-NPO-15102-1] c 25 N81-25159

## GAS BAGS

Omnidirectional multiple impact landing system Patent  
[NASA-CASE-XLA-09881] c 31 N71-16085

## GAS BEARINGS

Externally pressurized fluid bearing Patent  
[NASA-CASE-XMF-00515] c 15 N70-34664

Slit regulated gas journal bearing Patent  
[NASA-CASE-XNP-00478] c 15 N70-38620

Air bearing Patent  
[NASA-CASE-XMF-00339] c 15 N70-39896

Air bearing Patent  
[NASA-CASE-XMF-01887] c 15 N71-10617

Fluid power transmission Patent  
[NASA-CASE-XMS-01445] c 12 N71-16031

Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent  
[NASA-CASE-XGS-02011] c 15 N71-20739

Swivel support for gas bearings Patent  
[NASA-CASE-XMF-07808] c 15 N71-23812

Fluid power transmitting gas bearing Patent  
[NASA-CASE-ERC-10097] c 15 N71-28465

Angular displacement indicating gas bearing support system Patent  
[NASA-CASE-XLA-09346] c 15 N71-28740

Air bearing assembly for curved surfaces  
[NASA-CASE-MFS-20423] c 15 N72-11388

Air bearing  
[NASA-CASE-WLP-10002] c 15 N72-17451

Axially and radially controllable magnetic bearing  
[NASA-CASE-GSC-11551-1] c 37 N76-18459

Thrust bearing  
[NASA-CASE-LEW-11949-1] c 37 N76-29588

Cantilever mounted resilient pad gas bearing  
[NASA-CASE-LEW-12569-1] c 37 N79-10418

Improved compliant hydrodynamic fluid journal bearing  
[NASA-CASE-LEW-13670-1] c 37 N84-22959

## GAS CHROMATOGRAPHY

Micropacked column for a chromatographic system  
[NASA-CASE-XNP-04816] c 06 N69-39936

Baseline stabilization system for ionization detector Patent  
[NASA-CASE-XNP-03128] c 10 N70-41991

Procedure and apparatus for determination of water in nitrogen tetroxide  
[NASA-CASE-NPO-10234] c 06 N72-17094

Analysis of hydrogen-deuterium mixtures  
[NASA-CASE-NPO-11322] c 06 N72-25146

Ultraviolet atomic emission detector  
[NASA-CASE-HQN-10756-1] c 14 N72-25428

Method and apparatus for determining the contents of contained gas samples  
[NASA-CASE-GSC-10903-1] c 14 N73-12444

Gas chromatograph injection system  
[NASA-CASE-ARC-10344-2] c 35 N75-26334



Chelate-modified polymers for atmospheric gas chromatography  
[NASA-CASE-ARC-11154-1] c 25 N80-23383  
Modulated voltage metastable ionization detector  
[NASA-CASE-ARC-11503-1] c 51 N84-23093

**GAS COMPOSITION**

Method and means for helium/hydrogen ratio measurement by alpha scattering  
[NASA-CASE-NPO-14079-1] c 25 N80-20334  
Microwave limb sounder — measuring trace gases in the upper atmosphere  
[NASA-CASE-NPO-14544-1] c 46 N82-12685  
Mobile sampler for use in acquiring samples of terrestrial atmospheric gases  
[NASA-CASE-NPO-15220-1] c 45 N83-25217

**GAS COOLED REACTORS**

Gas core nuclear reactor Patent  
[NASA-CASE-LEW-10250-1] c 22 N71-28759

**GAS COOLING**

Refrigeration apparatus  
[NASA-CASE-NPO-10309] c 15 N69-23190  
Gas cooled high temperature thermocouple Patent  
[NASA-CASE-XLE-09475-1] c 33 N71-15568  
Apparatus and method for heating a material in a transparent ampoule — crystal growth  
[NASA-CASE-MFS-25436-1] c 27 N83-36220

**GAS DENSITY**

Dynamic sensor Patent  
[NASA-CASE-XAC-02877] c 14 N70-41681  
Method for measuring the characteristics of a gas Patent  
[NASA-CASE-XLA-03375] c 16 N71-24074  
Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent  
[NASA-CASE-XER-11203] c 14 N71-28994  
Gaseous control system for nuclear reactors  
[NASA-CASE-XLE-04599] c 22 N72-20597  
Method of producing crystalline materials  
[NASA-CASE-NPO-10440] c 15 N72-21466  
Wide range dynamic pressure sensor  
[NASA-CASE-ARC-10263-1] c 14 N72-22438  
Apparatus for absolute pressure measurement  
[NASA-CASE-LAR-10000] c 14 N73-30394  
Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector — for determining density of gas  
[NASA-CASE-ARC-10631-1] c 74 N76-20958  
Method and apparatus for convection control of metallic halide vapor density in a metallic halide laser  
[NASA-CASE-NPO-15021-1] c 36 N83-10417

**GAS DETECTORS**

Method for detecting hydrogen gas  
[NASA-CASE-XMF-03873] c 06 N69-39733  
Hydrogen leak detection device Patent  
[NASA-CASE-MFS-11537] c 14 N71-20442  
Leak detector wherein a probe is monitored with ultraviolet radiation Patent  
[NASA-CASE-ERC-10034] c 15 N71-24896  
Miniature carbon dioxide sensor and methods  
[NASA-CASE-MSC-13332-1] c 14 N72-21408  
Fluorescence detector for monitoring atmospheric pollutants  
[NASA-CASE-NPO-13231-1] c 45 N75-27585  
Carbon monoxide monitor — using real time operation  
[NASA-CASE-MFS-22060-1] c 35 N75-29380  
Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector — for determining density of gas  
[NASA-CASE-ARC-10631-1] c 74 N76-20958  
Indicator providing continuous indication of the presence of a specific pollutant in air  
[NASA-CASE-NPO-13474-1] c 15 N76-21742  
Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N76-22509  
Cryogenic liquid sensor  
[NASA-CASE-NPO-10619-1] c 35 N77-21393  
Optically selective, acoustically resonant gas detecting transducer  
[NASA-CASE-ARC-10639-1] c 35 N78-13400  
Stark cell optoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015  
Stark effect spectrophone for continuous absorption spectra monitoring — a technique for gas analysis  
[NASA-CASE-NPO-15102-1] c 25 N81-25159  
Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137

**GAS DISCHARGE TUBES**

Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent  
[NASA-CASE-XLA-03103] c 25 N71-21693

**GAS DISCHARGES**

Parametric microwave noise generator Patent  
[NASA-CASE-XER-11019] c 09 N71-23598

State-of-charge coulometer  
[NASA-CASE-NPO-15759-1] c 35 N82-26630

**GAS EVOLUTION**

Filter system for control of outgas contamination in vacuum Patent  
[NASA-CASE-MFS-14711] c 15 N71-26185

**GAS EXPANSION**

Sealed battery gas manifold construction Patent  
[NASA-CASE-XNP-03378] c 03 N71-11051  
Refrigeration apparatus Patent  
[NASA-CASE-XNP-08877] c 15 N71-23025  
Gas operated actuator  
[NASA-CASE-NPO-11340] c 15 N72-33477

**GAS FLOW**

Fluid flow restrictor Patent  
[NASA-CASE-NPO-10117] c 15 N71-15608  
High pressure gas filter system Patent  
[NASA-CASE-MFS-12806] c 14 N71-17588  
Burst diaphragm flow initiator Patent  
[NASA-CASE-MFS-12915] c 11 N71-17600  
Method of recording a gas flow pattern Patent  
[NASA-CASE-XNP-01779] c 12 N71-20815  
Respiration monitor  
[NASA-CASE-FRC-10012] c 14 N72-17329  
Shock tube bypass piston tunnel  
[NASA-CASE-NPO-12109] c 11 N72-22245  
Fluidic proportional thruster system  
[NASA-CASE-ARC-10106-1] c 28 N72-22769  
Gas filter mounting structure  
[NASA-CASE-MSC-12297] c 14 N72-23457  
Pressurized lighting system  
[NASA-CASE-KSC-10644] c 09 N72-27227  
Method for controlling vapor content of a gas  
[NASA-CASE-NPO-10633] c 03 N72-28025  
Gas flow control device  
[NASA-CASE-NPO-11479] c 15 N73-13462  
Compact hydrogenator  
[NASA-CASE-NPO-11682-1] c 35 N74-15127  
Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730  
Condensate removal device for heat exchanger  
[NASA-CASE-MSC-14143-1] c 77 N75-20139  
Flow measuring apparatus  
[NASA-CASE-LEW-12078-1] c 35 N75-30503  
Gas compression apparatus  
[NASA-CASE-MSC-14757-1] c 35 N78-10428  
Variable cycle gas turbine engines  
[NASA-CASE-LEW-12916-1] c 37 N78-17384  
Moisture content and gas sampling device — to test hermetically sealed electronic equipment  
[NASA-CASE-MSC-18866-1] c 35 N82-26634  
Low noise lead screw positioner  
[NASA-CASE-NPO-15617-1] c 35 N82-33681  
Covering solid, film cooled surfaces with a duplex thermal barrier coating  
[NASA-CASE-LEW-13450-1] c 31 N83-35177  
Apparatus and method for destructive removal of particles contained in flowing fluid  
[NASA-CASE-NPO-15426-1] c 35 N84-17555  
Technique for measuring gas conversion factors  
[NASA-CASE-LAR-13220-1] c 35 N84-32786

**GAS GENERATORS**

Specialized halogen generator for purification of water Patent  
[NASA-CASE-XLA-08913] c 14 N71-28933  
Quick disconnect coupling  
[NASA-CASE-NPO-11202] c 15 N72-25450  
Electrolytic gas operated actuator  
[NASA-CASE-NPO-11369] c 15 N73-13467  
Vortex breech high pressure gas generator  
[NASA-CASE-LAR-10549-1] c 31 N73-13898  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-1] c 37 N76-18446  
Hydrogen-rich gas generator  
[NASA-CASE-NPO-13464-1] c 44 N76-18642  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-2] c 44 N76-29700  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13464-2] c 44 N76-29704  
Hydrogen-rich gas generator  
[NASA-CASE-NPO-13560-1] c 44 N77-10636

**GAS GUNS**

Electric arc device for heating gases Patent  
[NASA-CASE-XAC-00319] c 25 N70-41628

**GAS HEATING**

Bimetallic fluid displacement apparatus — for stirring and heating stored gases and liquids  
[NASA-CASE-ARC-10441-1] c 35 N74-15126

**GAS INJECTION**

Burning rate control of solid propellants Patent  
[NASA-CASE-XLE-03494] c 27 N71-21819  
Compact hydrogenator  
[NASA-CASE-NPO-11682-1] c 35 N74-15127  
Gas chromatograph injection system  
[NASA-CASE-ARC-10344-2] c 35 N75-26334

In-situ laser retorting of oil shale  
[NASA-CASE-LEW-12217-1] c 43 N78-14452  
Gas turbine engine with recirculating bleed  
[NASA-CASE-LEW-12452-1] c 07 N78-25089  
Ozonation of cooling tower waters  
[NASA-CASE-NPO-14340-1] c 45 N80-14579

**GAS IONIZATION**

Electrostatic plasma modulator for space vehicle re-entry communication Patent  
[NASA-CASE-XLA-01400] c 07 N70-41331  
A multichannel photoionization chamber for absorption analysis Patent  
[NASA-CASE-ERC-10044-1] c 14 N71-27090  
Modulated hydrogen ion flame detector  
[NASA-CASE-ARC-10322-1] c 35 N76-18403  
Gas ion laser construction for electrically isolating the pressure gauge thereof  
[NASA-CASE-MFS-22597] c 36 N78-17366  
Charge transfer reaction laser with preionization means  
[NASA-CASE-NPO-13945-1] c 36 N78-27402  
Hydrogen hollow cathode ion source  
[NASA-CASE-LEW-12940-1] c 72 N80-33186

**GAS LASERS**

Method and apparatus for stabilizing a gaseous optical maser Patent  
[NASA-CASE-XGS-03644] c 16 N71-18614  
Inert gas metallic vapor laser  
[NASA-CASE-NPO-13449-1] c 36 N75-32441  
Diffused waveguiding capillary tube with distributed feedback for a gas laser  
[NASA-CASE-NPO-13544-1] c 36 N76-18428  
Gas ion laser construction for electrically isolating the pressure gauge thereof  
[NASA-CASE-MFS-22597] c 36 N78-17366  
Charge transfer reaction laser with preionization means  
[NASA-CASE-NPO-13945-1] c 36 N78-27402  
Solar pumped laser  
[NASA-CASE-LAR-12870-1] c 36 N84-16542  
Spectrophone stabilized laser with line center offset frequency control  
[NASA-CASE-NPO-15516-1] c 36 N84-22943

**GAS MASERS**

Solid state chemical source for ammonia beam maser Patent  
[NASA-CASE-XGS-01504] c 16 N70-41578  
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency  
[NASA-CASE-HQN-10654-1] c 16 N73-13489  
Method of producing a storage bulb for an atomic hydrogen maser  
[NASA-CASE-NPO-13050-1] c 36 N75-15029  
Atomic standard with variable storage volume  
[NASA-CASE-GSC-11895-1] c 35 N76-15436

**GAS MIXTURES**

Gas analyzer for bi-gaseous mixtures Patent  
[NASA-CASE-XLA-01131] c 14 N71-10774  
Vapor pressure measuring system and method Patent  
[NASA-CASE-XMS-01618] c 14 N71-20741  
Mixture separation cell Patent  
[NASA-CASE-XMS-02952] c 18 N71-20742  
Analysis of hydrogen-deuterium mixtures  
[NASA-CASE-NPO-11322] c 06 N72-25146  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-2] c 44 N76-29700  
Hydrogen-rich gas generator  
[NASA-CASE-NPO-13560-1] c 44 N77-10636  
Chemical vapor deposition reactor — providing uniform film thickness  
[NASA-CASE-NPO-13650-1] c 25 N79-28253

**GAS PIPES**

Fluid flow restrictor Patent  
[NASA-CASE-NPO-10117] c 15 N71-15608

**GAS PRESSURE**

Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233  
Dynamic sensor Patent  
[NASA-CASE-XAC-02877] c 14 N70-41681  
Wide range dynamic pressure sensor  
[NASA-CASE-ARC-10263-1] c 14 N72-22438  
Measurement of gas production of microorganisms — using pressure sensors  
[NASA-CASE-LAR-11326-1] c 35 N75-33368  
Depressurization of arc lamps  
[NASA-CASE-NPO-10790-1] c 33 N77-21316  
Pressure limiting propellant actuating system  
[NASA-CASE-MSC-18179-1] c 20 N80-18097



Method of an apparatus for measuring temperature and pressure — remote sensing of the atmosphere  
[NASA-CASE-GSC-12558-1] c 35 N82-29580

Method and apparatus for producing gas-filled hollow spheres — target pellets for inertial confinement fusion  
[NASA-CASE-NPO-14596-3] c 31 N83-31896

**GAS STREAMS**

Method for measuring the characteristics of a gas Patent  
[NASA-CASE-XLA-03375] c 16 N71-24074

Stagnation pressure probe — for measuring pressure of supersonic gas streams  
[NASA-CASE-LAR-11139-1] c 35 N74-32878

Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067

Simultaneous treatment of SO<sub>2</sub> containing stack gases and waste water  
[NASA-CASE-MSC-16258-1] c 45 N79-12584

Gas levitator having fixed levitation node for containerless processing  
[NASA-CASE-MFS-25509-1] c 35 N83-24828

**GAS TEMPERATURE**

Method for measuring the characteristics of a gas Patent  
[NASA-CASE-XLA-03375] c 16 N71-24074

Method of an apparatus for measuring temperature and pressure — remote sensing of the atmosphere  
[NASA-CASE-GSC-12558-1] c 35 N82-29580

**GAS TRANSPORT**

Purging means and method for Xenon arc lamps  
[NASA-CASE-NPO-11978] c 31 N78-17238

**GAS TUBES**

Toggle mechanism for pinching metal tubes  
[NASA-CASE-GSC-12274-1] c 37 N79-28550

**GAS TURBINE ENGINES**

Gas turbine engine fuel control  
[NASA-CASE-LEW-11187-1] c 28 N73-19793

Swirl can primary combustor  
[NASA-CASE-LEW-11326-1] c 23 N73-30665

Controlled separation combustor — airflow distribution in gas turbine engines  
[NASA-CASE-LEW-11593-1] c 20 N76-14190

Fused silicide coatings containing discrete particles for protecting niobium alloys — used in space shuttle thermal protection systems and turbine engine components  
[NASA-CASE-LEW-11179-1] c 27 N76-16229

Dual output variable pitch turbofan actuation system  
[NASA-CASE-LEW-12419-1] c 07 N77-14025

Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12830-1] c 07 N77-23106

Blade retainer assembly  
[NASA-CASE-LEW-12608-1] c 07 N77-27116

Nickel base alloy — for gas turbine engine stator vanes  
[NASA-CASE-LEW-12270-1] c 26 N77-32280

Bearing seat usable in a gas turbine engine  
[NASA-CASE-LEW-12477-1] c 37 N77-32501

Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12321-1] c 37 N78-10467

Variable cycle gas turbine engines  
[NASA-CASE-LEW-12916-1] c 37 N78-17384

Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-2] c 07 N78-18066

Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067

Automotive gas turbine fuel control  
[NASA-CASE-LEW-12785-1] c 37 N78-24545

Gas turbine engine with recirculating bleed  
[NASA-CASE-LEW-12452-1] c 07 N78-25089

Independent power generator  
[NASA-CASE-LAR-11208-1] c 44 N78-32539

Redundant disc  
[NASA-CASE-LEW-12496-1] c 07 N78-33101

Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-3] c 07 N79-14096

Variable area exhaust nozzle  
[NASA-CASE-LEW-12378-1] c 07 N79-14097

Power control for hot gas engines  
[NASA-CASE-NPO-14220-1] c 37 N81-14318

Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999

Apparatus for sensor failure detection and correction in a gas turbine engine control system  
[NASA-CASE-LEW-12907-2] c 07 N81-19115

Active clearance control system for a turbomachine  
[NASA-CASE-LEW-12938-1] c 07 N82-32366

Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31603

Silicon-slurry/aluminide coating — protecting gas turbine engine vanes and blades  
[NASA-CASE-LEW-13343] c 26 N83-31795

Apparatus for improving the fuel efficiency of a gas turbine engine  
[NASA-CASE-LEW-13142-1] c 07 N83-36029

Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560

Oxidizing seal for a turbine tip gas path  
[NASA-CASE-LEW-14053-1] c 07 N84-22563

Improved compliant hydrodynamic fluid journal bearing  
[NASA-CASE-LEW-13670-1] c 37 N84-22959

Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577

Air modulation apparatus  
[NASA-CASE-LEW-13524-1] c 07 N84-33410

**GAS TURBINES**

Gas turbine combustor Patent  
[NASA-CASE-LEW-10286-1] c 28 N71-28915

Gas turbine exhaust nozzle — for noise reduction  
[NASA-CASE-LEW-11569-1] c 07 N74-15453

Gas turbine engine with convertible accessories  
[NASA-CASE-LEW-12390-1] c 07 N78-17056

Counter pumping debris excluder and separator — gas turbine shaft seals  
[NASA-CASE-LEW-11855-1] c 07 N78-25090

Direct heating surface combustor  
[NASA-CASE-LEW-11877-1] c 34 N78-27357

Apparatus and method for reducing thermal stress in a turbine rotor  
[NASA-CASE-LEW-12232-1] c 07 N79-10057

Method and turbine for extracting kinetic energy from a stream of two-phase fluid  
[NASA-CASE-NPO-14130-1] c 34 N79-20335

Corrosion resistant thermal barrier coating — protecting gas turbines and other engine parts  
[NASA-CASE-LEW-13088-1] c 26 N81-25188

Dual clearance squeeze film damper  
[NASA-CASE-LEW-13506-1] c 07 N84-22562

**GAS VALVES**

High-temperature, high-pressure spherical segment valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817

Shrink-fit gas valve Patent  
[NASA-CASE-XGS-00587] c 15 N70-35087

Thermally operated valve Patent  
[NASA-CASE-XLE-00815] c 15 N70-35407

Transfer valve Patent  
[NASA-CASE-XAC-01158] c 15 N71-23051

Slow opening valve  
[NASA-CASE-MSC-20112-1] c 37 N82-28641

**GAS WELDING**

Spectral method for monitoring atmospheric contamination of inert-gas welding shields Patent  
[NASA-CASE-XMF-02039] c 15 N71-15871

Grain refinement control in TIG arc welding  
[NASA-CASE-MSC-19095-1] c 37 N75-19683

**GAS-LIQUID INTERACTIONS**

Fluid control apparatus and method  
[NASA-CASE-LAR-11110-1] c 34 N75-26282

**GAS-METAL INTERACTIONS**

Improved refractory coatings — sputtered coatings on substrates that form stable nitrides  
[NASA-CASE-LEW-23169-2] c 26 N81-16209

Refractory coatings and method of producing the same  
[NASA-CASE-LEW-13169-1] c 26 N82-29415

**GAS-SOLID INTERACTIONS**

Apparatus and method to keep the walls of a free space reactor free from deposits of solid materials  
[NASA-CASE-NPO-15851-1] c 73 N83-12986

**GASDYNAMIC LASERS**

Diatom infrared gasdynamic laser — for producing different wavelengths  
[NASA-CASE-ARC-10370-1] c 36 N75-31426

**GASEOUS DIFFUSION**

Gas purged dry box glove Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080

Gas core nuclear reactor Patent  
[NASA-CASE-LEW-10250-1] c 22 N71-28759

Gas diffusion liquid storage bag and method of use for storing blood  
[NASA-CASE-NPO-13930-1] c 52 N79-14749

**GASEOUS FISSION REACTORS**

Gas core nuclear reactor Patent  
[NASA-CASE-LEW-10250-1] c 22 N71-28759

**GASEOUS ROCKET PROPELLANTS**

Ion rocket Patent  
[NASA-CASE-XLE-00376] c 28 N70-37245

Continuous detonation reaction engine Patent  
[NASA-CASE-MFS-06926] c 28 N71-22983

**GASES**

Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372

Observation window for a gas confining chamber  
[NASA-CASE-NPO-10890] c 11 N73-12265

Combustion detector  
[NASA-CASE-LAR-10739-1] c 14 N73-16484

Low gravity phase separator  
[NASA-CASE-MSC-14773-1] c 35 N78-12390

Water separator  
[NASA-CASE-XMS-01295-1] c 37 N79-21345

**GASIFICATION**

Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950

Fluidized bed gasification of biomass to methane  
[NASA-CASE-NPO-15903-1] c 44 N84-12635

**GASKETS**

Cryogenic connector for vacuum use Patent  
[NASA-CASE-XGS-02441] c 15 N70-41629

Reinforced polyquinoxaline gasket and method of preparing the same — resistant to ionizing radiation and liquid hydrogen temperatures  
[NASA-CASE-MFS-21364-1] c 37 N74-18126

Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744

**GATES (CIRCUITS)**

Flux sensing device using a tubular core with toroidal gating coil and solenoidal output coil wound thereon Patent  
[NASA-CASE-XGS-01881] c 09 N70-40123

SCR blocking pulse gate amplifier Patent  
[NASA-CASE-XLA-07497] c 09 N71-12514

Logic AND gate for fluid circuits Patent  
[NASA-CASE-XLA-07391] c 12 N71-17579

Synchronous counter Patent  
[NASA-CASE-XGS-02440] c 08 N71-19432

Increasing efficiency of switching type regulator circuits Patent  
[NASA-CASE-XMS-09352] c 09 N71-23316

Memory device for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-2] c 60 N78-10709

Transformer regulated self-stabilizing chopper  
[NASA-CASE-XGS-09186] c 33 N78-17295

Controller for computer control of brushless dc motors — automobile engines  
[NASA-CASE-NPO-13970-1] c 33 N81-20352

Combinational logic for generating gate drive signals for phase control rectifiers  
[NASA-CASE-MFS-25208-1] c 33 N83-10345

Pulsed phase locked loop strain monitor — voltage controlled oscillators  
[NASA-CASE-LAR-12772-1] c 33 N83-16626

Power control for ac motor  
[NASA-CASE-MFS-25862] c 33 N83-28329

FET charge sensor and voltage probe  
[NASA-CASE-NPO-16045-1] c 76 N84-33211

**GATES (OPENINGS)**

Film feed camera having a detent means Patent  
[NASA-CASE-LAR-10686] c 14 N71-28935

**GAW-1 AIRFOIL**

Airfoil shape for flight at subsonic speeds — design analysis and aerodynamic characteristics of the GAW-1 airfoil  
[NASA-CASE-LAR-10585-1] c 02 N76-22154

**GEAR TEETH**

Wobble gear drive mechanism — for aerospace environments  
[NASA-CASE-WOO-00625] c 37 N78-17385

Belt for transmitting power from a cogged driving member to a cogged driven member  
[NASA-CASE-GSC-12289-1] c 37 N80-32717

**GEARS**

Precision stepping drive Patent  
[NASA-CASE-MFS-14772] c 15 N71-17692

Bidirectional step torque filter with zero backlash characteristic Patent  
[NASA-CASE-XGS-04227] c 15 N71-21744

Self-lubricating gears and other mechanical parts Patent  
[NASA-CASE-MFS-14971] c 15 N71-24984

Concentric differential gearing arrangement  
[NASA-CASE-ARC-10462-1] c 37 N74-27901

Sequencing device utilizing planetary gear set  
[NASA-CASE-MSC-19514-1] c 37 N79-20377

Power control for hot gas engines  
[NASA-CASE-NPO-14220-1] c 37 N81-14318

Clutchless multiple drive source for output shaft  
[NASA-CASE-ARC-11325-1] c 37 N82-22496

Self-locking telescoping manipulator arm  
[NASA-CASE-MFS-25906-1] c 54 N84-11761

Directional gear ratio transmissions  
[NASA-CASE-LAR-12644-1] c 37 N84-28084

**GELLED ROCKET PROPELLANTS**

Process of forming particles in a cryogenic path Patent  
[NASA-CASE-NPO-10250] c 23 N71-16212

**GELS**

Intermittent type silica gel adsorption refrigerator Patent  
[NASA-CASE-XNP-00920] c 15 N71-15906

**GENERAL AVIATION AIRCRAFT**

Explosively activated egress area  
[NASA-CASE-LAR-12624-1] c 01 N83-35992

## GENERATORS

Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730

## GEODESY

Geodetic distance measuring apparatus  
[NASA-CASE-GSC-12609-2] c 36 N83-29681

## GEODETIC SURVEYS

Geodetic distance measuring apparatus  
[NASA-CASE-GSC-12609-1] c 36 N81-22344

## GEODIMETERS

Geodetic distance measuring apparatus  
[NASA-CASE-GSC-12609-1] c 36 N81-22344

## GEOLOGICAL SURVEYS

Borehole geological assessment  
[NASA-CASE-NPO-14231-1] c 46 N80-10709

Geological assessment probe  
[NASA-CASE-NPO-14558-1] c 46 N80-24906

## GEOMETRY

Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612

## GERMANIUM

Germanium coated microbridge and method  
[NASA-CASE-MFS-23274-1] c 33 N78-13320

## GIMBALS

Gimballed, partially submerged rocket nozzle Patent  
[NASA-CASE-XMF-01544] c 28 N70-34162

Azimuth laying system Patent  
[NASA-CASE-XMF-01669] c 21 N71-23289

Passive caging mechanism Patent  
[NASA-CASE-GSC-10306-1] c 15 N71-24694

Hermetic sealed vibration damper Patent  
[NASA-CASE-MSG-10959] c 15 N71-26243

Bearing and gimbal lock mechanism and spiral flex lead module Patent  
[NASA-CASE-GSC-10556-1] c 31 N71-26537

Failure detection and control means for improved drift performance of a gimbaled platform system  
[NASA-CASE-MFS-23551-1] c 04 N76-26175

Autonomous navigation system --- gyroscopic pendulum for air navigation  
[NASA-CASE-ARC-11257-1] c 04 N81-21047

Aircraft body-axis rotation measurement system  
[NASA-CASE-FRC-11043-1] c 06 N83-33882

## GLANDS (SEALS)

Spiral groove seal  
[NASA-CASE-XLE-10326-2] c 15 N72-29488

Circumferential shaft seal  
[NASA-CASE-LEW-12119-2] c 37 N81-26447

## GLASS

Method for producing a solar cell having an integral protective covering  
[NASA-CASE-XGS-04531] c 03 N69-24267

Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988

Silicon solar cell with cover glass bonded to cell by metal pattern Patent  
[NASA-CASE-XLE-08569] c 03 N71-23449

Apparatus for applying cover slides  
[NASA-CASE-NPO-10575] c 03 N72-25019

Glass-to-metal seals comprising relatively high expansion metals  
[NASA-CASE-LEW-10698-1] c 37 N74-21063

Covered silicon solar cells and method of manufacture --- with polymeric films  
[NASA-CASE-LEW-11065-2] c 44 N76-14600

Window defect planar mapping technique  
[NASA-CASE-MSG-19442-1] c 74 N77-10899

Method of forming shrink-fit compression seal  
[NASA-CASE-LAR-11563-1] c 37 N77-23482

Reaction cured glass and glass coatings  
[NASA-CASE-ARC-11051-1] c 27 N78-32260

Method of forming frozen spheres in a force-free drop tower  
[NASA-CASE-NPO-14845-1] c 27 N82-28442

Method for milling and drilling glass  
[NASA-CASE-GSC-12636-1] c 31 N83-27058

Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781

Glass heating panels and method for preparing the same from architectural reflective glass  
[NASA-CASE-NPO-15753-1] c 27 N84-33589

## GLASS COATINGS

Method of attaching a cover glass to a silicon solar cell Patent  
[NASA-CASE-XLE-08569-2] c 03 N71-24681

Process for glass coating an ion accelerator grid Patent  
[NASA-CASE-LEW-10278-1] c 15 N71-28582

Method of coating solar cell with borosilicate glass and resultant product  
[NASA-CASE-GSC-11514-1] c 03 N72-24037

Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings  
[NASA-CASE-LAR-10385-3] c 74 N78-15879

Method for repair of thin glass coatings --- on space shuttle orbiter tiles  
[NASA-CASE-KSC-11097-1] c 27 N82-33520

High temperature glass thermal control structure and coating --- for application to spacecraft reusable heat shielding  
[NASA-CASE-ARC-11164-1] c 44 N83-34448

GLASS ELECTRODES  
Liquid junction and method of fabricating the same Patent Application  
[NASA-CASE-NPO-10682] c 15 N70-34699

Apparatus and method of inserting a microelectrode in body tissue or the like using vibration means  
[NASA-CASE-NPO-13910-1] c 52 N79-27836

GLASS FIBER REINFORCED PLASTICS  
Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-1] c 24 N79-16915

Method of manufacture of bonded fiber flywheel --- fiberglass-epoxy  
[NASA-CASE-MFS-23674-1] c 24 N81-29163

GLASS FIBERS  
Non-magnetic battery case Patent  
[NASA-CASE-XGS-00886] c 03 N71-11053

Lathe tool bit and holder for machining fiberglass materials  
[NASA-CASE-XLA-10470] c 15 N72-21489

Polyimide resin-fiberglass cloth laminates for printed circuit boards  
[NASA-CASE-MFS-20408] c 18 N73-12604

Method of repairing discontinuity in fiberglass structures  
[NASA-CASE-LAR-10416-1] c 24 N74-30001

Fiber modified polyurethane foam for ballistic protection  
[NASA-CASE-ARC-10714-1] c 27 N76-15310

Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575

Glass compositions with a high modulus of elasticity --- nontoxic glass fibers  
[NASA-CASE-HQN-10274-1] c 27 N82-29451

High modulus invert analog glass compositions containing beryllia  
[NASA-CASE-HQN-10931-2] c 27 N82-29452

Method and technique for installing light-weight, fragile, high-temperature fiber insulation  
[NASA-CASE-MSG-16934-3] c 24 N84-16262

Containerless high purity pulling process and apparatus for glass fibers  
[NASA-CASE-MFS-25905-2] c 31 N84-32569

GLASSWARE  
Laboratory glassware rack for seismic safety  
[NASA-CASE-ARC-11422-1] c 35 N84-20808

GLAUCOMA  
Intra-ocular pressure normalization technique and equipment  
[NASA-CASE-LEW-12955-1] c 52 N80-14684

GLIDE PATHS  
Integrated lift/drag controller for aircraft  
[NASA-CASE-ARC-10456-1] c 05 N75-12930

GLOBAL POSITIONING SYSTEM  
High dynamic global positioning system receiver  
[NASA-CASE-NPO-16171-1-CU] c 04 N84-12151

Navigation system and method  
[NASA-CASE-GSC-12508-1] c 04 N84-22546

GLOBES  
Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site  
[NASA-CASE-LAR-10626-1] c 19 N74-21015

GLOVES  
Gas purged dry box glove Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080

Restraining mechanism  
[NASA-CASE-MSG-13054] c 54 N78-17677

Heat resistant protective hand covering  
[NASA-CASE-MSG-20261-2] c 54 N84-23113

Heat resistant protective hand covering  
[NASA-CASE-MSG-20261-1] c 54 N84-28484

GLOW DISCHARGES  
Deposition of alloy films --- on irregularly shaped metal object  
[NASA-CASE-LEW-11262-1] c 27 N74-13270

Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge  
[NASA-CASE-ARC-11057-1] c 27 N78-31233

Electric discharge for treatment of trace contaminants  
[NASA-CASE-ARC-10975-1] c 33 N79-15245

Use of glow discharge in fluidized beds  
[NASA-CASE-ARC-11245-1] c 28 N82-18401

## GLUCOSE

Use of the enzyme hexokinase for the reduction of inherent light levels  
[NASA-CASE-XGS-05533] c 04 N69-27487

## GOLD COATINGS

Thin window, drifted silicon, charged particle detector  
[NASA-CASE-XLE-10529] c 14 N69-23191

Chromium electrodes for REDOX cells  
[NASA-CASE-LEW-13653-1] c 44 N84-28205

## GONDOLAS

System for stabilizing torque between a balloon and gondola  
[NASA-CASE-GSC-11077-1] c 02 N73-13008

## GRANULAR MATERIALS

Soil particles separator, collector and viewer Patent  
[NASA-CASE-XNP-09770] c 15 N71-20440

Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-16027-1] c 33 N83-29585

## GRAPHITE

Bonding graphite with fused silver chloride  
[NASA-CASE-XGS-00963] c 15 N69-39735

Method of preparing graphite reinforced aluminum composite  
[NASA-CASE-MFS-21077-1] c 24 N75-28135

Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement  
[NASA-CASE-NPO-13764-1] c 27 N78-17215

Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-3] c 28 N81-14103

Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950

GRAPHITE-EPOXY COMPOSITES  
Partial interlaminar separation system for composites  
[NASA-CASE-LAR-12065-1] c 24 N81-14000

Method and device for detection of a substance --- determining carbon fiber release in fire situations  
[NASA-CASE-NPO-14940-1] c 33 N83-31954

Improved impact tolerant material  
[NASA-CASE-LAR-12887-1] c 24 N84-20649

GRATINGS (SPECTRA)  
Concave grating spectrometer Patent  
[NASA-CASE-XGS-01036] c 14 N70-40003

Diffractoid grating configuration for X-ray and ultraviolet focusing  
[NASA-CASE-GSC-12357-1] c 74 N80-21140

GRAVIMETERS  
Gravimeter Patent  
[NASA-CASE-XMF-05844] c 14 N71-17587

GRAVITATION  
Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397

Anti-gravity device  
[NASA-CASE-MFS-22758-1] c 70 N75-26789

GRAVITATIONAL CONSTANT  
Gravity device Patent  
[NASA-CASE-XMF-00424] c 11 N70-38196

GRAVITATIONAL EFFECTS  
Locomotion and restraint aid Patent  
[NASA-CASE-ARC-10153] c 05 N71-28619

Rotary plant growth accelerating apparatus --- weightlessness  
[NASA-CASE-ARC-10722-1] c 51 N75-25503

Method and apparatus for simulating gravitational forces on a living organism  
[NASA-CASE-MSG-20202-1] c 54 N84-16803

GRAVITATIONAL FIELDS  
Difference circuit Patent  
[NASA-CASE-XNP-08274] c 10 N71-13537

Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242

GRAVITY GRADIENT SATELLITES  
Stabilization of gravity oriented satellites Patent  
[NASA-CASE-XAC-01591] c 31 N71-17729

Station keeping of a gravity gradient stabilized satellite Patent  
[NASA-CASE-XLA-03132] c 31 N71-22969

GRAVITY GRADIOMETERS  
Gravity device Patent  
[NASA-CASE-XMF-00424] c 11 N70-38196

Gravity gradient attitude control system Patent  
[NASA-CASE-GSC-10555-1] c 21 N71-27324

GRAZING INCIDENT  
Diffractoid grating configuration for X-ray and ultraviolet focusing  
[NASA-CASE-GSC-12357-1] c 74 N80-21140

GRIDS  
Method of making dished ion thruster grids  
[NASA-CASE-LEW-11694-1] c 20 N75-18310

Apparatus for forming dished ion thruster grids  
[NASA-CASE-LEW-11694-2] c 37 N76-14461

Method of constructing dished ion thruster grids to provide hole array spacing compensation  
[NASA-CASE-LEW-11876-1] c 20 N76-21276

Solar cell grid patterns  
[NASA-CASE-NPO-13087-2] c 44 N76-31666

**GRINDING (MATERIAL REMOVAL)**  
Laser apparatus for removing material from rotating objects Patent  
[NASA-CASE-MFS-11279] c 16 N71-20400  
Method for producing dispersion strengthened alloys by converting metal to a halide, comminuting, reducing the metal halide to the metal and sintering  
[NASA-CASE-LEW-10450-1] c 15 N72-25448  
Method of forming a sharp edge on an optical device  
[NASA-CASE-GSC-12348-1] c 74 N80-24149

**GRINDING MACHINES**  
Grinding arrangement for ball nose milling cutters  
[NASA-CASE-LAR-10450-1] c 37 N74-27905

**GROOVES**  
Energy absorbing device Patent  
[NASA-CASE-XMF-10040] c 15 N71-22877  
Spiral groove seal --- for hydraulic rotating shaft  
[NASA-CASE-LEW-10326-3] c 37 N74-10474  
Spiral groove seal --- for rotating shaft  
[NASA-CASE-XLE-10326-4] c 37 N74-15125  
Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692

**GROUND EFFECT MACHINES**  
Gravity stabilized flying vehicle Patent  
[NASA-CASE-MSC-12111-1] c 02 N71-11039  
Air cushion lift pad Patent  
[NASA-CASE-MFS-14885] c 31 N71-15689  
Open tube guideway for high speed air cushioned vehicles  
[NASA-CASE-LAR-10256-1] c 85 N74-34672

**GROUND HANDLING**  
Supporting and protecting device Patent  
[NASA-CASE-MFS-00580] c 11 N70-35383

**GROUND STATIONS**  
Traffic control system and method Patent  
[NASA-CASE-GSC-10087-1] c 02 N71-19287  
Method and apparatus for mapping planets  
[NASA-CASE-NPO-11001] c 07 N72-21118  
Ultra stable frequency distribution system  
[NASA-CASE-NPO-13836-1] c 32 N78-15323

**GROUND SUPPORT EQUIPMENT**  
Dynamic Doppler simulator Patent  
[NASA-CASE-XMS-05454-1] c 07 N71-12391  
Controlled release device Patent  
[NASA-CASE-XKS-03338] c 15 N71-24043  
Apparatus for measuring an aircraft's speed and height  
[NASA-CASE-LAR-12275-1] c 35 N79-18296

**GROUND-AIR-GROUND COMMUNICATION**  
Retrodirective optical system  
[NASA-CASE-XGS-04480] c 16 N69-27491  
Closed loop ranging system Patent  
[NASA-CASE-XNP-01501] c 21 N70-41930  
Location identification system  
[NASA-CASE-ERC-10324] c 07 N72-25173  
Satellite personal communications system  
[NASA-CASE-NPO-14480-1] c 32 N80-20448

**GROUT**  
Antenna grout replacement system  
[NASA-CASE-NPO-15202-1] c 27 N83-34043

**GUARDS (SHIELDS)**  
Safety shield for vacuum/pressure chamber viewing port  
[NASA-CASE-GSC-12513-1] c 31 N81-19343

**GUIDANCE (MOTION)**  
Gravity stabilized flying vehicle Patent  
[NASA-CASE-MSC-12111-1] c 02 N71-11039  
Adjustable attitude guide device Patent  
[NASA-CASE-XLA-07911] c 15 N71-15571  
Film feed camera having a detent means Patent  
[NASA-CASE-LAR-10686] c 14 N71-28935  
Two component bearing Patent  
[NASA-CASE-XLA-00013] c 15 N71-29136  
Cable stabilizer for open shaft cable operated elevators  
[NASA-CASE-KSC-10513] c 15 N72-25453  
Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098

**GUIDANCE SENSORS**  
Light sensitive digital aspect sensor Patent  
[NASA-CASE-XGS-00359] c 14 N70-34158  
Guidance and maneuver analyzer Patent  
[NASA-CASE-XNP-09572] c 14 N71-15621  
Optical machine tool alignment indicator Patent  
[NASA-CASE-XAC-09489-1] c 15 N71-26673  
Light sensor  
[NASA-CASE-NPO-11311] c 14 N72-25414  
Sun direction detection system  
[NASA-CASE-NPO-13722-1] c 74 N77-22951  
Terminal guidance sensor system  
[NASA-CASE-NPO-14521-1] c 54 N79-20746  
Focal plane array optical proximity sensor  
[NASA-CASE-NPO-15155-1] c 74 N81-22894

Sun sensing guidance system for high altitude aircraft  
[NASA-CASE-FRC-11052-1] c 04 N82-23231  
Phase sensitive guidance sensor for wire-following vehicles  
[NASA-CASE-NPO-15341-1] c 35 N84-33769

**GUN LAUNCHERS**  
Self-obturing, gas operated launcher  
[NASA-CASE-NPO-11013] c 11 N72-22247

**GUN PROPELLANTS**  
Nitramine propellants --- gun propellant burning rate  
[NASA-CASE-NPO-14103-1] c 28 N78-31255  
Hypervelocity gun --- using both electric and chemical energy for projectile propulsion  
[NASA-CASE-XLE-03186-1] c 09 N79-21084

**GUNN EFFECT**  
Voltage tunable Gunn-type microwave generator Patent  
[NASA-CASE-XER-07894] c 09 N71-18721  
Shielded cathode mode bulk effect devices  
[NASA-CASE-ERC-10119] c 26 N72-21701  
Gunn-type solid state devices  
[NASA-CASE-XER-07895] c 26 N72-25679  
Magnetically actuated tuning method for Gunn oscillators  
[NASA-CASE-NPO-12106] c 09 N73-15235

**GUNS**  
Method of peening and portable peening gun  
[NASA-CASE-MFS-23047-1] c 37 N76-18454

**GYNECOLOGY**  
Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875

**GYRATORS**  
Gyrator type circuit Patent  
[NASA-CASE-XAC-10608-1] c 09 N71-12517  
Gyrator employing field effect transistors  
[NASA-CASE-MFS-21433] c 09 N73-20232  
Integrated P-channel MOS gyrator  
[NASA-CASE-MFS-22343-1] c 33 N74-34638  
Integrable power gyrator --- with Z-matrix design using parallel transistors  
[NASA-CASE-MFS-22342-1] c 33 N75-30428

**GYROSCOPES**  
Externally pressurized fluid bearing Patent  
[NASA-CASE-XMF-00515] c 15 N70-34664  
Air bearing Patent  
[NASA-CASE-XMF-00339] c 15 N70-39896  
Spacecraft experiment pointing and attitude control system Patent  
[NASA-CASE-XLA-05464] c 21 N71-14132  
Temperature compensated digital inertial sensor --- circuit for maintaining inertial element of gyroscope or accelerometer at constant position  
[NASA-CASE-NPO-13044-1] c 35 N74-15094  
All sky pointing attitude control system  
[NASA-CASE-ARC-10716-1] c 35 N77-20399

**GYROSCOPIC PENDULUMS**  
Autonomous navigation system --- gyroscopic pendulum for air navigation  
[NASA-CASE-ARC-11257-1] c 04 N81-21047

**GYROSTABILIZERS**  
Passive dual spin misalignment compensators --- gyro stabilized device  
[NASA-CASE-GSC-11479-1] c 35 N74-28097  
Angular momentum control device used for stabilization of space vehicles and the like  
[NASA-CASE-LAR-11051-1] c 15 N76-14158  
Aircraft body-axis rotation measurement system  
[NASA-CASE-FRC-11043-1] c 06 N83-33882

## H

**HAFFNIUM**  
Thermal shock resistant hafnia ceramic material  
[NASA-CASE-LAR-10894-1] c 18 N73-14584

**HALIDES**  
Method for producing dispersion strengthened alloys by converting metal to a halide, comminuting, reducing the metal halide to the metal and sintering  
[NASA-CASE-LEW-10450-1] c 15 N72-25448  
Zinc-halide battery with molten electrolyte  
[NASA-CASE-NPO-11961-1] c 44 N76-18843  
The 1 - (dialkoxyposphonyl)methyl -2,4- and -2,6-dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076

**HALL EFFECT**  
Hall current measuring apparatus having a series resistor for temperature compensation Patent  
[NASA-CASE-XAC-01662] c 14 N71-23037  
Brushless direct current tachometer Patent  
[NASA-CASE-MFS-20385] c 09 N71-24904  
Hall effect transducer  
[NASA-CASE-LAR-10620-1] c 09 N72-25255

Redundant speed control for brushless Hall effect motor  
[NASA-CASE-MFS-20207-1] c 09 N73-32107  
Hall effect magnetometer  
[NASA-CASE-LEW-11632-2] c 35 N75-13213  
Magnetic field control --- electromechanical torquing device  
[NASA-CASE-MFS-23828-1] c 33 N82-26569

**HALL GENERATORS**  
Hall current measuring apparatus having a series resistor for temperature compensation Patent  
[NASA-CASE-XAC-01662] c 14 N71-23037

**HALOGENES**  
Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10098-1] c 06 N71-24739

**HAMMERS**  
Apparatus for making diamonds  
[NASA-CASE-MFS-20698] c 15 N72-20446

**HAND (ANATOMY)**  
Mechanically actuated triggered hand  
[NASA-CASE-MFS-20413] c 15 N72-21463  
Therapeutic hand exerciser  
[NASA-CASE-LAR-11667-1] c 52 N76-19785  
Compact artificial hand  
[NASA-CASE-NPO-13906-1] c 54 N79-24652

**HANDLING EQUIPMENT**  
Supporting and protecting device Patent  
[NASA-CASE-XMF-00580] c 11 N70-35383  
Device for handling printed circuit cards Patent  
[NASA-CASE-MFS-20453] c 15 N71-29133

**HARDENING (MATERIALS)**  
Method of heat treating age-hardenable alloys  
[NASA-CASE-XNP-01311] c 26 N75-29236

**HARDNESS**  
Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986

**HARMONIC GENERATORS**  
Wide band doubler and sine wave quadrature generator  
[NASA-CASE-NPO-11133] c 10 N72-20223

**HARNESSES**  
Pressure suit tie-down mechanism Patent  
[NASA-CASE-XMS-00784] c 05 N71-12335  
One hand backpack harness  
[NASA-CASE-LAR-10102-1] c 05 N72-23085  
Shoulder harness and lap belt restraint system  
[NASA-CASE-ARC-10519-2] c 05 N75-25915

**HATCHES**  
Emergency escape system Patent  
[NASA-CASE-XMS-12086-1] c 05 N71-12345

**HEAD-UP DISPLAYS**  
Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733

**HEART FUNCTION**  
Ratemeter  
[NASA-CASE-MFS-20418] c 14 N73-24473  
Ultrasonic biomedical measuring and recording apparatus --- for recording motion of internal organs such as heart valves  
[NASA-CASE-ARC-10597-1] c 52 N74-20726

**HEART RATE**  
Digital cardiometer system Patent  
[NASA-CASE-XMS-02399] c 05 N71-22896  
Ratemeter  
[NASA-CASE-MFS-20418] c 14 N73-24473  
Digital computing cardiometer  
[NASA-CASE-MFS-20284-1] c 52 N74-12778  
Pulse transducer with artifact signal attenuator --- heart rate sensors  
[NASA-CASE-FRC-11012-1] c 52 N80-23969  
Dual physiological rate measurement instrument  
[NASA-CASE-MSC-20078-1] c 52 N82-32971

**HEAT**  
Thermionic converter with current augmented by self induced magnetic field Patent  
[NASA-CASE-XLE-01903] c 22 N71-23599

**HEAT EXCHANGERS**  
Electro-thermal rocket Patent  
[NASA-CASE-XLE-00267] c 28 N70-33356  
Space suit heat exchanger Patent  
[NASA-CASE-XMS-09571] c 05 N71-19439  
Dual solid cryogenics for spacecraft refrigeration Patent  
[NASA-CASE-GSC-10188-1] c 23 N71-24725  
Shell side liquid metal boiler  
[NASA-CASE-NPO-10831] c 33 N72-20915  
Helium refrigerator and method for decontaminating the refrigerator  
[NASA-CASE-NPO-10834] c 23 N72-25819  
Condensate removal device for heat exchanger  
[NASA-CASE-MSC-14143-1] c 77 N75-20139  
Heat exchanger system and method  
[NASA-CASE-LAR-10799-2] c 34 N76-17317  
Heat transfer device  
[NASA-CASE-MFS-22838-1] c 34 N76-18374  
Heat exchanger  
[NASA-CASE-MFS-22991-1] c 34 N77-10463

- Flat-plate heat pipe  
[NASA-CASE-GSC-11998-1] c 34 N77-32413  
Combustor --- low nitrogen oxide formation  
[NASA-CASE-NPO-13958-1] c 25 N79-11151  
Fuel delivery system including heat exchanger means  
[NASA-CASE-LEW-12793-1] c 37 N79-11403  
Heat exchanger --- rocket combustion chambers and cooling systems  
[NASA-CASE-LEW-12252-1] c 34 N79-13288  
Heat exchanger and method of making --- bonding rocket chambers with a porous metal matrix  
[NASA-CASE-LEW-12441-1] c 34 N79-13289  
Thermal energy transformer  
[NASA-CASE-NPO-14058-1] c 44 N79-18443  
Portable breathing system --- a breathing apparatus using a rebreathing system of heat exchangers for carbon dioxide removal  
[NASA-CASE-MSC-16182-1] c 54 N80-10799  
Heat exchanger and method of making --- rocket lining  
[NASA-CASE-LEW-12441-2] c 34 N80-24573  
Heat exchanger and method of making  
[NASA-CASE-LEW-12441-3] c 44 N81-24519  
Cycling Joule Thomson refrigerator  
[NASA-CASE-NPO-15251-1] c 31 N83-31897

## HEAT FLUX

- Heat flux sensor assembly  
[NASA-CASE-XMS-05909-1] c 14 N69-27459  
Heat flux measuring system Patent  
[NASA-CASE-XFR-03802] c 33 N71-23085  
Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948
- HEAT MEASUREMENT**  
Thermal detector of electromagnetic energy by means of a vibrating electrode Patent  
[NASA-CASE-XAC-10768] c 09 N71-18830  
Specific wavelength colorimeter --- for measuring given solute concentration in test sample  
[NASA-CASE-MSC-14081-1] c 35 N74-27860

## HEAT PIPES

- Heat pipe thermionic diode power system Patent  
[NASA-CASE-XMF-05843] c 03 N71-11055  
Microwave power receiving antenna Patent  
[NASA-CASE-MFS-20333] c 09 N71-13486  
Isothermal cover with thermal reservoirs Patent  
[NASA-CASE-MFS-20355] c 33 N71-25353  
Structural heat pipe --- for spacecraft wall thermal insulation system  
[NASA-CASE-GSC-11619-1] c 34 N75-12222  
Method of forming a wick for a heat pipe  
[NASA-CASE-NPO-13391-1] c 34 N76-27515  
Production of I-123  
[NASA-CASE-LEW-11390-3] c 25 N76-29379  
Heat pipe with dual working fluids  
[NASA-CASE-ARC-10198] c 34 N78-17336  
Multi-chamber controllable heat pipe  
[NASA-CASE-ARC-10199] c 34 N78-17337  
Thermal control canister  
[NASA-CASE-GSC-12253-1] c 34 N79-31523  
Heat pipe cooled probe  
[NASA-CASE-LAR-12588-1] c 44 N81-24525  
High thermal power density heat transfer --- thermionic converters  
[NASA-CASE-LEW-12950-1] c 34 N82-11399  
Heat pipes containing alkali metal working fluid  
[NASA-CASE-LEW-12253-1] c 74 N83-19596  
High thermal power density heat transfer apparatus providing electrical isolation at high temperature using heat pipes  
[NASA-CASE-LEW-12950-2] c 44 N83-29804  
Heat pipe thermal switch  
[NASA-CASE-GSC-12812-1] c 34 N83-35307  
Thermal control system --- removing waste heat from industrial process spacecraft  
[NASA-CASE-GSC-12771-1] c 34 N84-14461  
Multi-leg heat pipe evaporator  
[NASA-CASE-MSC-20812-1] c 34 N84-32748  
Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692

## HEAT PUMPS

- Thermal pump-compressor for space use Patent  
[NASA-CASE-XLA-00377] c 33 N71-17610  
Manually actuated heat pump  
[NASA-CASE-NPO-10677] c 05 N72-11084  
Pump for delivering heated fluids  
[NASA-CASE-NPO-11417] c 15 N73-24513  
Magnetic heat pumping  
[NASA-CASE-LEW-12508-1] c 34 N78-17335  
Cooling system for high speed aircraft  
[NASA-CASE-LAR-12406-1] c 05 N81-26114  
Magnetic heat pumping  
[NASA-CASE-LEW-12508-3] c 34 N83-29625

## HEAT RADIATORS

- Capillary radiator Patent  
[NASA-CASE-XLE-03307] c 33 N71-14035

- Radiator deployment actuator Patent  
[NASA-CASE-MSC-11817-1] c 15 N71-26611  
Space simulation and radiative property testing system and method Patent  
[NASA-CASE-MFS-20096] c 14 N71-30026

## HEAT RESISTANT ALLOYS

- High temperature nickel-base alloy Patent  
[NASA-CASE-XLE-00151] c 17 N70-33283  
Nickel-base alloy Patent  
[NASA-CASE-XLE-00283] c 17 N70-36616  
High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-02991] c 17 N71-16025  
Brazing alloy Patent  
[NASA-CASE-XNP-03063] c 17 N71-23365  
Method of forming superalloys  
[NASA-CASE-LEW-10805-1] c 15 N73-13465  
Method of making pressure tight seal for super alloy  
[NASA-CASE-LAR-10170-1] c 37 N74-11301  
Method of forming articles of manufacture from superalloy powders  
[NASA-CASE-LEW-10805-2] c 37 N74-13179  
Refractory porcelain enamel passive control coating for high temperature alloys  
[NASA-CASE-MFS-22324-1] c 27 N75-27160  
Cermets composition and method of fabrication --- heat resistant alloys and powders  
[NASA-CASE-NPO-13120-1] c 27 N76-15311  
Metallic hot wire anemometer --- for high speed wind tunnel tests  
[NASA-CASE-ARC-10911-1] c 35 N77-20400  
Method of growing composites of the type exhibiting the Soret effect --- improved structure of eutectic alloy crystals  
[NASA-CASE-MFS-22926-1] c 24 N77-27187  
Directionally solidified eutectic gamma plus beta nickel-base superalloys  
[NASA-CASE-LEW-12906-1] c 26 N77-32279  
Nickel base alloy --- for gas turbine engine stator vanes  
[NASA-CASE-LEW-12270-1] c 26 N77-32280  
Directionally solidified eutectic gamma-gamma nickel-base superalloys  
[NASA-CASE-LEW-12905-1] c 26 N78-18183  
Improved thermal barrier coating system  
[NASA-CASE-LEW-13324-2] c 26 N83-34014  
Arc spray fabrication of metal matrix composite monolayer --- high temperature fiber-reinforced superalloy composites  
[NASA-CASE-LEW-13828-1] c 24 N84-15203  
Coating with overlay metallic-cermet alloy systems  
[NASA-CASE-LEW-13639-2] c 26 N84-27855

## HEAT SHIELDING

- Heat flux sensor assembly  
[NASA-CASE-XMS-05909-1] c 14 N69-27459  
Heat shield oven  
[NASA-CASE-XMS-04318] c 15 N69-27871  
Heat shield Patent  
[NASA-CASE-XMS-00486] c 33 N70-33344  
Sandwich panel construction Patent  
[NASA-CASE-XLA-00349] c 33 N70-37979  
Hypersonic reentry vehicle Patent  
[NASA-CASE-XMS-04142] c 31 N70-41631  
Transpirationally cooled heat ablation system Patent  
[NASA-CASE-XMS-02677] c 31 N70-42075  
Azine polymers and process for preparing the same Patent  
[NASA-CASE-XMF-08656] c 06 N71-11242  
Synthesis of polymeric Schiff bases by reaction of acetals and amine compounds Patent  
[NASA-CASE-XMF-08652] c 06 N71-11243  
Lightweight refractory insulation and method of preparing the same Patent  
[NASA-CASE-XMF-05279] c 18 N71-16124  
Thermal radiation shielding Patent  
[NASA-CASE-XLE-03432] c 33 N71-24145  
Spacecraft Patent  
[NASA-CASE-MSC-13047-1] c 31 N71-25434  
Fabric for micrometeoroid protection garment Patent  
[NASA-CASE-MSC-12109] c 18 N71-26285  
Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under ceramic tiles  
[NASA-CASE-MSC-12619-2] c 27 N79-12221  
Thermal insulation protection means  
[NASA-CASE-MSC-12737-1] c 24 N79-25142  
Installing fiber insulation  
[NASA-CASE-MSC-16973-1] c 37 N81-14317  
Thermal barrier pressure seal --- shielding junctions between spacecraft control surfaces and structures  
[NASA-CASE-MSC-18134-1] c 37 N81-15363  
Multiwall thermal protection system  
[NASA-CASE-LAR-12620-1] c 24 N82-32417  
Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275  
High temperature silicon carbide impregnated insulating fabrics  
[NASA-CASE-MSC-18832-1] c 27 N83-18908

## HEAT SINKS

- Thermal conductive connection and method of making same Patent  
[NASA-CASE-XMS-02087] c 09 N70-41717  
Constant temperature heat sink for calorimeters Patent  
[NASA-CASE-XMF-04208] c 33 N71-29051  
Tubular sublimatory evaporator heat sink  
[NASA-CASE-ARC-10912-1] c 34 N77-19353  
Compact pulsed laser having improved heat conductance  
[NASA-CASE-NPO-13147-1] c 36 N77-25502  
Hypersonic airbreathing missile  
[NASA-CASE-LAR-12264-1] c 15 N78-32168  
Electroexplosive device  
[NASA-CASE-NPO-13858-1] c 28 N79-11231  
Thermal control canister  
[NASA-CASE-GSC-12253-1] c 34 N79-31523  
Heat pipe thermal switch  
[NASA-CASE-GSC-12812-1] c 34 N83-35307

## HEAT SOURCES

- Conically shaped cavity radiometer with a dual purpose cone winding Patent  
[NASA-CASE-XNP-09701] c 14 N71-26475  
Thermally cascaded thermoelectric generator  
[NASA-CASE-NPO-10753] c 03 N72-26031  
Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft  
[NASA-CASE-LEW-11227-1] c 73 N75-30876  
Portable electrophoresis apparatus using minimum electrolyte  
[NASA-CASE-NPO-13274-1] c 25 N79-10163

## HEAT STORAGE

- Solar energy trap  
[NASA-CASE-MFS-22744-1] c 44 N76-24696  
Thermal energy storage system --- operating on superheating of liquids  
[NASA-CASE-MFS-23167-1] c 44 N76-31667  
Stable density stratification solar pond  
[NASA-CASE-NPO-15419-2] c 44 N84-32910  
Saltless solar pond  
[NASA-CASE-NPO-15808-1] c 44 N84-34792

## HEAT TRANSFER

- Thermal switch Patent  
[NASA-CASE-XNP-00463] c 33 N70-36847  
Sandwich panel construction Patent  
[NASA-CASE-XLA-00349] c 33 N70-37979  
Apparatus for transferring cryogenic liquids Patent  
[NASA-CASE-XLE-00345] c 15 N70-38020  
Method of improving heat transfer characteristics in a nucleate boiling process Patent  
[NASA-CASE-XMS-04268] c 33 N71-16277  
Transmission line thermal short Patent  
[NASA-CASE-XNP-09775] c 09 N71-20445  
Heat sensing instrument Patent  
[NASA-CASE-XLA-01551] c 14 N71-22989  
Fluid phase analyzer Patent  
[NASA-CASE-NPO-10691] c 14 N71-26199  
Heat conductive resiliently compressible structure for space electronics package modules Patent  
[NASA-CASE-MSC-12389] c 33 N71-29052  
Space simulation and radiative property testing system and method Patent  
[NASA-CASE-MFS-20096] c 14 N71-30026  
Manually actuated heat pump  
[NASA-CASE-NPO-10677] c 05 N72-11084  
High intensity radiant energy pulse source having means for opening shutter when light flux has reached a desired level  
[NASA-CASE-ARC-10178-1] c 09 N72-17152  
Apparatus for sensing temperature  
[NASA-CASE-XLE-05230] c 14 N72-27410  
Thermal control system for a spacecraft modular housing  
[NASA-CASE-GSC-11018-1] c 31 N73-30829  
Thermal flux transfer system  
[NASA-CASE-NPO-12070-1] c 28 N73-32606  
Electrostatically controlled heat shutter  
[NASA-CASE-NPO-11942-1] c 33 N73-32618  
Heat transfer device  
[NASA-CASE-NPO-11120-1] c 34 N74-18552  
Heat exchanger  
[NASA-CASE-MFS-22991-1] c 34 N77-10463  
Heat pipe with dual working fluids  
[NASA-CASE-ARC-10198] c 34 N78-17336  
Low cost cryostat  
[NASA-CASE-NPO-14513-1] c 35 N81-14287  
Heat exchanger and method of making  
[NASA-CASE-LEW-12441-3] c 44 N81-24519  
Thermochemical generation of hydrogen  
[NASA-CASE-NPO-15015-1] c 25 N82-28368  
Heat pipes containing alkali metal working fluid  
[NASA-CASE-LEW-12253-1] c 74 N83-19596  
Automatic thermal switch --- spacecraft applications  
[NASA-CASE-GSC-12553-1] c 34 N83-28356

- High thermal power density heat transfer apparatus providing electrical isolation at high temperature using heat pipes  
[NASA-CASE-LEW-12950-2] c 44 N83-29804
- Heat pipe thermal switch  
[NASA-CASE-GSC-12812-1] c 34 N83-35307
- Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560
- Instrumentation for measuring moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-2] c 35 N84-22935
- Heat pipes to reduce engine exhaust emissions  
[NASA-CASE-LEW-12590-1] c 37 N84-22958
- HEAT TRANSMISSION**
- Heat flow calorimeter --- measures output of Ni-Cd batteries  
[NASA-CASE-GSC-11434-1] c 34 N74-27859
- Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft  
[NASA-CASE-LEW-11227-1] c 73 N75-30876
- Heat transparent high intensity high efficiency solar cell  
[NASA-CASE-LEW-12892-1] c 44 N83-14692
- HEAT TREATMENT**
- High-speed infrared furnace  
[NASA-CASE-XLE-10466] c 17 N69-25147
- Heat shield oven  
[NASA-CASE-XMS-04318] c 15 N69-27871
- Method for molding compounds Patent  
[NASA-CASE-XLA-01091] c 15 N71-10672
- Method of producing refractory bodies having controlled porosity Patent  
[NASA-CASE-LEW-10393-1] c 17 N71-15468
- Inorganic thermal control pigment Patent  
[NASA-CASE-XNP-02139] c 18 N71-24184
- Thermal compression bonding of interconnectors  
[NASA-CASE-GSC-10303] c 15 N72-22487
- Method of heat treating a formed powder product material  
[NASA-CASE-LEW-10805-3] c 26 N74-10521
- Diffusion welding --- heat treatment of nickel alloys following single step vacuum welding process  
[NASA-CASE-LEW-11388-2] c 37 N74-21055
- Heat sterilizable patient ventilator  
[NASA-CASE-NPO-13313-1] c 54 N75-27761
- Method of heat treating age-hardenable alloys  
[NASA-CASE-XNP-01311] c 26 N75-29236
- Method for detecting pollutants --- through chemical reactions and heat treatment  
[NASA-CASE-LAR-11405-1] c 45 N76-31714
- Method of producing complex aluminum alloy parts of high temper. and products thereof  
[NASA-CASE-MSC-19693-1] c 26 N78-24333
- Bakeable McLeod gauge  
[NASA-CASE-XGS-01293-1] c 35 N79-33450
- Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492
- Method for strengthening boron fibers  
[NASA-CASE-LEW-13826-2] c 24 N84-24711
- Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988
- HEATERS**
- Inherent redundancy electric heater  
[NASA-CASE-MFS-21462-1] c 33 N74-14935
- HEATING**
- System for preconditioning a combustible vapor  
[NASA-CASE-NPO-12072] c 28 N72-22772
- Diffusion welding in air --- solid state welding of butt joint by fusion welding, surface cleaning, and heating  
[NASA-CASE-LEW-11387-1] c 37 N74-18128
- An improved synthesis of 2,4,8,10-tetroxaspiro (5.5) undecane  
[NASA-CASE-ARC-11243-2] c 23 N80-31472
- Heating and cooling system --- for fatigue test specimens  
[NASA-CASE-LAR-12393-1] c 34 N83-34221
- HEATING EQUIPMENT**
- Method and apparatus for controllably heating fluid Patent  
[NASA-CASE-XMF-04237] c 33 N71-16278
- Electric arc apparatus Patent  
[NASA-CASE-XAC-01677] c 09 N71-20816
- Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948
- Self-cycling fluid heater  
[NASA-CASE-MSC-15567-1] c 33 N73-16918
- Portable heatable container  
[NASA-CASE-NPO-14237-1] c 44 N80-20808
- Glass heating panels and method for preparing the same from architectural reflective glass  
[NASA-CASE-NPO-15753-1] c 27 N84-33589
- HEIGHT**
- Sidelooking laser altimeter for a flight simulator  
[NASA-CASE-ARC-11312-1] c 36 N83-34304
- HELICAL ANTENNAS**
- Weatherproof helix antenna Patent  
[NASA-CASE-XKS-08485] c 07 N71-19493
- Collapsible high gain antenna  
[NASA-CASE-KSC-10392] c 07 N73-26117
- HELICOPTER WAKES**
- Variable geometry rotor system  
[NASA-CASE-LAR-10557] c 02 N72-11018
- HELICOPTERS**
- Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029
- Non-destructive method for applying and removing instrumentation on helicopter rotor blades  
[NASA-CASE-LAR-11201-1] c 35 N78-24515
- Constant lift rotor for a heavier than air craft  
[NASA-CASE-ARC-11045-1] c 05 N79-17847
- Shapes for rotating airfoils  
[NASA-CASE-LAR-12396-1] c 02 N84-28732
- Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400
- HELIOSTATS**
- Solar tracking system  
[NASA-CASE-MFS-23999-1] c 44 N81-24520
- HELIUM**
- Helium refining by superfluidity Patent  
[NASA-CASE-XNP-00733] c 06 N70-34946
- High pressure helium purifier Patent  
[NASA-CASE-XMF-06888] c 15 N71-24044
- Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback  
[NASA-CASE-NPO-13346-1] c 36 N76-29575
- Cryostat system for temperatures on the order of 2 deg K or less  
[NASA-CASE-NPO-13459-1] c 31 N77-10229
- Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode  
[NASA-CASE-GSC-12168-1] c 31 N79-17029
- HELIUM HYDROGEN ATMOSPHERES**
- Method and means for helium/hydrogen ratio measurement by alpha scattering  
[NASA-CASE-NPO-14079-1] c 25 N80-20334
- HELIUM IONS**
- Charge transfer reaction laser with preionization means  
[NASA-CASE-NPO-13945-1] c 36 N78-27402
- HELIUM-NEON LASERS**
- Laser communication system for controlling several functions at a location remote to the laser  
[NASA-CASE-LAR-10311-1] c 16 N73-16536
- Direction sensitive laser velocimeter --- determining the direction of particles using a helium-neon laser  
[NASA-CASE-LAR-12177-1] c 36 N81-24422
- HELMETS**
- Helmet assembly and latch means therefor Patent  
[NASA-CASE-XMS-04935] c 05 N71-11190
- Electrode construction Patent  
[NASA-CASE-ARC-10043-1] c 05 N71-11193
- Venting device for pressurized space suit helmet Patent  
[NASA-CASE-XMS-09652-1] c 05 N71-26333
- Helmet latching and attaching ring  
[NASA-CASE-XMS-04670] c 54 N78-17678
- Protective garment ventilation system  
[NASA-CASE-XMS-04928] c 54 N78-17679
- Helmet feedport  
[NASA-CASE-XMS-09653] c 54 N78-17680
- Emergency space-suit helmet  
[NASA-CASE-MSC-10954-1] c 54 N78-18761
- Helmet weight simulator  
[NASA-CASE-LAR-12320-1] c 54 N81-27806
- HELMHOLTZ RESONATORS**
- Acoustic ground impedance meter  
[NASA-CASE-LAR-12995-1] c 35 N84-22933
- HEMISPHERICAL SHELLS**
- Anti-glare improvement for optical imaging systems Patent  
[NASA-CASE-NPO-10337] c 14 N71-15604
- HERMETIC SEALS**
- Line cutter Patent  
[NASA-CASE-XMS-04072] c 15 N70-42017
- Hermetically sealed explosive release mechanism Patent  
[NASA-CASE-XGS-00824] c 15 N71-16078
- Traveling sealer for contoured table Patent  
[NASA-CASE-XLA-01494] c 15 N71-24164
- Method for detecting leaks in hermetically sealed containers Patent  
[NASA-CASE-ERC-10045] c 15 N71-24910
- Hermetic sealed vibration damper Patent  
[NASA-CASE-MSC-10959] c 15 N71-26243
- Method of forming ceramic to metal seal Patent  
[NASA-CASE-XNP-01263-2] c 15 N71-26312
- Pressure seal Patent  
[NASA-CASE-NPO-10796] c 15 N71-27068
- Tube sealing device Patent  
[NASA-CASE-NPO-10431] c 15 N71-29132
- Hermetically sealed elbow actuator  
[NASA-CASE-MFS-14710] c 09 N72-22195
- Heat transfer device  
[NASA-CASE-NPO-11120-1] c 34 N74-18552
- Device for tensioning test specimens within an hermetically sealed chamber  
[NASA-CASE-MFS-23281-1] c 35 N77-22450
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721
- Hermetic seal for a shaft  
[NASA-CASE-NPO-15115-1] c 37 N82-24453
- Moisture content and gas sampling device --- to test hermetically sealed electronic equipment  
[NASA-CASE-MSC-18866-1] c 35 N82-26634
- Hermetically sealable package for hybrid solid-state electronic devices and the like  
[NASA-CASE-MSC-20181-1] c 33 N82-28549
- HEXAGONS**
- Hexagon solar power panel  
[NASA-CASE-NPO-12148-1] c 44 N78-27515
- HEXAMETHYLENETETRAMINE**
- Structural wood panels with improved fire resistance  
[NASA-CASE-ARC-11174-1] c 24 N81-13999
- HEXOKINASE**
- Use of the enzyme hexokinase for the reduction of inherent light levels  
[NASA-CASE-XGS-05533] c 04 N69-27487
- HIGH ACCELERATION**
- Universal pilot restraint suit and body support therefor Patent  
[NASA-CASE-XAC-00405] c 05 N70-41819
- High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272
- HIGH ALTITUDE**
- Balanced bellows spirometer  
[NASA-CASE-XAR-01547] c 05 N69-21473
- Sun sensing guidance system for high altitude aircraft  
[NASA-CASE-FRC-11052-1] c 04 N82-23231
- HIGH ALTITUDE BALLOONS**
- Thin film strain transducer --- in-flight monitoring of balloon film strain  
[US-PATENT-APPL-SN-526770] c 35 N84-12448
- Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015
- HIGH ALTITUDE ENVIRONMENTS**
- Method of making a solid propellant rocket motor Patent  
[NASA-CASE-XLA-04126] c 28 N71-26779
- HIGH ASPECT RATIO**
- Landing arrangement for aerial vehicles Patent  
[NASA-CASE-XLA-00142] c 02 N70-33286
- Landing arrangement for aerial vehicle Patent  
[NASA-CASE-XLA-00806] c 02 N70-34858
- Means for controlling aerodynamically induced twist  
[NASA-CASE-LAR-12175-1] c 05 N82-28279
- HIGH FREQUENCIES**
- Apparatus for ballasting high frequency transistors  
[NASA-CASE-XGS-05003] c 09 N69-24318
- Holder for crystal resonators Patent  
[NASA-CASE-XNP-03637] c 15 N71-21311
- Multiple varactor frequency doubler Patent  
[NASA-CASE-XMF-04958-1] c 10 N71-26414
- Filtering technique based on high-frequency plant modeling for high-gain control  
[NASA-CASE-LAR-12215-1] c 08 N79-23097
- Inelastic tunnel diodes  
[NASA-CASE-LEW-13833-1] c 33 N83-25983
- Method of and apparatus for double-exposure holographic interferometry  
[NASA-CASE-MFS-25405-1] c 35 N84-22929
- HIGH GAIN**
- Filtering technique based on high-frequency plant modeling for high-gain control  
[NASA-CASE-LAR-12215-1] c 08 N79-23097
- HIGH PASS FILTERS**
- Radio frequency coaxial high pass filter Patent  
[NASA-CASE-XGS-01418] c 09 N71-23573
- HIGH POLYMERS**
- Variable stiffness polymeric damper  
[NASA-CASE-XAC-11225] c 14 N69-27486
- HIGH POWER LASERS**
- Large volume multiple-path nuclear pumped laser  
[NASA-CASE-LAR-12592-1] c 36 N82-13415
- Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418
- High power metallic halide laser --- amplifying a copper chloride laser  
[NASA-CASE-NPO-14782-1] c 36 N82-28616
- Solar pumped laser  
[NASA-CASE-LAR-12870-1] c 36 N84-16542

## HIGH PRESSURE

- High-temperature, high-pressure spherical segment valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817
- High pressure four-way valve Patent  
[NASA-CASE-XNP-00214] c 15 N70-36908
- High pressure filter Patent  
[NASA-CASE-XNP-00732] c 28 N70-41447
- Antiflutter ball check valve Patent  
[NASA-CASE-XNP-01152] c 15 N70-41811
- Liquid flow sight assembly Patent  
[NASA-CASE-XLE-02998] c 14 N70-42074
- High pressure regulator valve Patent  
[NASA-CASE-XNP-00710] c 15 N71-10778
- Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925
- High pressure air valve Patent  
[NASA-CASE-MS-11010] c 15 N71-19485
- Valve seat with resilient support member Patent  
[NASA-CASE-XKS-02582] c 15 N71-21234
- High pressure helium purifier Patent  
[NASA-CASE-XMF-06888] c 15 N71-24044
- Liquid aerosol dispenser  
[NASA-CASE-MFS-20829] c 12 N72-21310
- Gas compression apparatus  
[NASA-CASE-MS-14757-1] c 35 N78-10428
- Purging means and method for Xenon arc lamps  
[NASA-CASE-NPO-11978] c 31 N78-17238
- Shaft seal assembly for high speed and high pressure applications  
[NASA-CASE-LEW-11873-1] c 37 N79-22475
- Surface conforming thermal/pressure seal --- tail assemblies of space shuttle orbiters  
[NASA-CASE-MS-18422-1] c 37 N82-16408
- High-temperature, high-pressure optical cell  
[NASA-CASE-MFS-26000-1] c 74 N84-16986

## HIGH RESOLUTION

- High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119
- High resolution Fourier interferometer-spectrophotopolarimeter  
[NASA-CASE-NPO-13604-1] c 35 N76-31490
- High resolution threshold photoelectron spectroscopy by electron attachment  
[NASA-CASE-NPO-14078-1] c 72 N80-14877
- Interferometer --- high resolution  
[NASA-CASE-NPO-14448-1] c 74 N81-29963
- Retinally stabilized differential resolution television display  
[US-PATENT-APPL-SN-425204] c 32 N83-12308
- High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898
- Correlation spectrometer having high resolution and multiplexing capability  
[NASA-CASE-NPO-15558-1] c 35 N84-34705

## HIGH SPEED

- Balanced bellows spirometer  
[NASA-CASE-XAR-01547] c 05 N69-21473
- High speed low level electrical stepping switch Patent  
[NASA-CASE-XAC-00060] c 09 N70-39915
- Impact testing machine Patent  
[NASA-CASE-XNP-04817] c 14 N71-23225
- Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692
- High speed rolling element bearing  
[NASA-CASE-LEW-10856-1] c 15 N72-22490
- Two stage light gas-plasma projectile accelerator  
[NASA-CASE-MFS-22287-1] c 75 N76-14931
- Selective data segment monitoring system --- using shift registers  
[NASA-CASE-ARC-10899-1] c 60 N77-19760
- Shaft seal assembly for high speed and high pressure applications  
[NASA-CASE-LEW-11873-1] c 37 N79-22475
- High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898

## HIGH SPEED CAMERAS

- Electrically-operated rotary shutter Patent  
[NASA-CASE-XNP-00637] c 14 N70-40273

## HIGH STRENGTH

- Method of making fiber composites  
[NASA-CASE-LEW-10424-2-2] c 18 N72-25539

## HIGH STRENGTH ALLOYS

- High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-00726] c 17 N71-15644
- Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02786] c 17 N71-20743
- Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent  
[NASA-CASE-XLE-03940] c 18 N71-26153
- Nickel base alloy  
[NASA-CASE-LEW-10874-1] c 17 N72-22535
- Cobalt-base alloy  
[NASA-CASE-LEW-10436-1] c 17 N73-32415

- High toughness-high strength iron alloy  
[NASA-CASE-LEW-12542-3] c 26 N80-32484

## HIGH STRENGTH STEELS

- Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions --- by adding potassium hydroxide to hydrazine  
[NASA-CASE-NPO-12122-1] c 24 N76-14203
- Process for making a high toughness-high strength iron alloy  
[NASA-CASE-LEW-12542-2] c 26 N79-22271

## HIGH TEMPERATURE

- High temperature heat source Patent  
[NASA-CASE-XLE-00490] c 33 N70-34545
- Thermionic diode switch Patent  
[NASA-CASE-NPO-10404] c 03 N71-12255
- Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925
- Method for fiberizing ceramic materials Patent  
[NASA-CASE-XNP-00597] c 18 N71-23088
- Induction furnace with perforated tungsten foil shielding Patent  
[NASA-CASE-XLE-04026] c 14 N71-23267
- Method of forming ceramic to metal seal Patent  
[NASA-CASE-XNP-01263-2] c 15 N71-26312
- Method of making fiber composites  
[NASA-CASE-LEW-10424-2-2] c 18 N72-25539
- Method of forming superalloys  
[NASA-CASE-LEW-10805-1] c 15 N73-13465
- High temperature beryllium oxide capacitor  
[NASA-CASE-LEW-11938-1] c 33 N76-15373
- Low to high temperature energy conversion system  
[NASA-CASE-NPO-13510-1] c 44 N77-32581
- Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12174-2] c 35 N79-14346
- High thermal power density heat transfer --- thermionic converters  
[NASA-CASE-LEW-12950-1] c 34 N82-11399
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-29390
- High temperature acoustic levitator  
[NASA-CASE-NPO-16022-1] c 71 N83-36847
- High-temperature, high-pressure optical cell  
[NASA-CASE-MFS-26000-1] c 74 N84-16986
- Negative electrode catalyst for the iron-chromium REDOX energy storage system  
[NASA-CASE-LEW-14028-1] c 44 N84-32909
- Overlay metallic-cermet alloy coating systems  
[NASA-CASE-LEW-13639-1] c 26 N84-33555

## HIGH TEMPERATURE AIR

- Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
[NASA-CASE-LAR-10612-1] c 12 N73-28144

## HIGH TEMPERATURE ENVIRONMENTS

- High-speed infrared furnace  
[NASA-CASE-XLE-10466] c 17 N69-25147
- Nickel-base alloy Patent  
[NASA-CASE-XLE-00283] c 17 N70-36616
- Strain sensor for high temperatures Patent  
[NASA-CASE-XNP-09205] c 14 N71-17657
- Trielectrode capacitive pressure transducer  
[NASA-CASE-ARC-10711-2] c 33 N76-21390
- Integrated structure vacuum tube  
[NASA-CASE-ARC-10445-1] c 31 N76-31365
- Installing fiber insulation  
[NASA-CASE-MS-16973-1] c 37 N81-14317
- Corrosion resistant thermal barrier coating --- protecting gas turbines and other engine parts  
[NASA-CASE-LEW-13088-1] c 26 N81-25188
- High temperature penetrator assembly with bayonet plug and ramp-activated lock  
[NASA-CASE-MS-18526-1] c 37 N82-24494
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453
- Daze fasteners  
[NASA-CASE-LAR-13009-1] c 37 N83-29706

## HIGH TEMPERATURE FLUIDS

- Self-cycling fluid heater  
[NASA-CASE-MS-15567-1] c 33 N73-16918
- High-temperature microphone system --- for measuring pressure fluctuations in gases at high temperature  
[NASA-CASE-LAR-12375-1] c 32 N79-24203

## HIGH TEMPERATURE GASES

- Instrument for the quantitative measurement of radiation at multiple wave lengths Patent  
[NASA-CASE-XLE-00011] c 14 N70-41946
- Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032
- Transient heat transfer gauge Patent  
[NASA-CASE-XNP-09802] c 33 N71-15641
- Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
[NASA-CASE-LAR-10578-1] c 12 N73-25262
- Isotope separation using metallic vapor lasers  
[NASA-CASE-NPO-13550-1] c 36 N77-26477

- Start up system for hydrogen generator used with an internal combustion engine  
[NASA-CASE-NPO-13849-1] c 28 N80-10374
- Free-piston regenerative hot gas hydraulic engine  
[NASA-CASE-LEW-12274-1] c 37 N80-31790
- Hot gas engine with dual crankshafts  
[NASA-CASE-NPO-14221-1] c 37 N81-25370
- Method and apparatus for strengthening boron fibers --- high temperature oxidation  
[NASA-CASE-LEW-13826-1] c 24 N82-26385
- Curved film cooling admission tube  
[NASA-CASE-LEW-13174-1] c 34 N83-27144

## HIGH TEMPERATURE LUBRICANTS

- Method of making self lubricating fluoride-metal composite materials Patent  
[NASA-CASE-XLE-08511-2] c 18 N71-16105
- Self-lubricating fluoride metal composite materials Patent  
[NASA-CASE-XLE-08511] c 18 N71-23710
- Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications  
[NASA-CASE-LEW-11930-4] c 24 N79-17916

## HIGH TEMPERATURE PLASMAS

- Method and apparatus for producing a plasma Patent  
[NASA-CASE-XLA-00147] c 25 N70-34661

## HIGH TEMPERATURE PROPELLANTS

- Feed system for an ion thruster  
[NASA-CASE-NPO-10737] c 28 N72-11709

## HIGH TEMPERATURE RESEARCH

- Gas cooled high temperature thermocouple Patent  
[NASA-CASE-XLE-09475-1] c 33 N71-15568
- Light shield and infrared reflector for fatigue testing Patent  
[NASA-CASE-XLA-01782] c 14 N71-26136
- High temperature oxidation resistant cermet compositions  
[NASA-CASE-NPO-13666-1] c 27 N77-13217

## HIGH TEMPERATURE TESTS

- High-temperature, high-pressure spherical segment valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817
- High temperature testing apparatus Patent  
[NASA-CASE-XLE-00335] c 14 N70-35368
- Apparatus for positioning and loading a test specimen Patent  
[NASA-CASE-XLE-01300] c 15 N70-41993
- Containerless high temperature calorimeter apparatus  
[NASA-CASE-MFS-23923-1] c 35 N81-19426
- Heating and cooling system --- for fatigue test specimens  
[NASA-CASE-LAR-12393-1] c 34 N83-34221
- Tensile testing apparatus  
[NASA-CASE-LAR-13243-1] c 35 N84-20804

## HIGH VACUUM

- Sealing device for an electrochemical cell Patent  
[NASA-CASE-XGS-02630] c 03 N71-22974
- Vacuum evaporator with electromagnetic ion steering Patent  
[NASA-CASE-NPO-10331] c 09 N71-26701
- Apparatus for absolute pressure measurement  
[NASA-CASE-LAR-10000] c 14 N73-30394
- Plasma cleaning device --- designed for high vacuum environments  
[NASA-CASE-MFS-22906-1] c 75 N78-27913

## HIGH VACUUM ORBITAL SIMULATOR

- Space environmental work simulator Patent  
[NASA-CASE-XMF-07488] c 11 N71-18773

## HIGH VOLTAGES

- Electrode and insulator with shielded dielectric junction  
[NASA-CASE-XLE-03778] c 09 N69-21542
- High-voltage cable Patent  
[NASA-CASE-XNP-00738] c 09 N70-38201
- High voltage pulse generator Patent  
[NASA-CASE-MS-12178-1] c 09 N71-13518
- High voltage transistor circuit Patent  
[NASA-CASE-XNP-06937] c 09 N71-19516
- High voltage divider system Patent  
[NASA-CASE-XLE-02008] c 09 N71-21583
- High voltage distributor  
[NASA-CASE-GSC-11849-1] c 33 N76-16332
- Sustained arc ignition system  
[NASA-CASE-LEW-12444-1] c 33 N77-28385
- High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31764
- Electronic system for high power load control --- solar arrays  
[NASA-CASE-NPO-15358-1] c 33 N83-27126
- High voltage isolation transformer  
[NASA-CASE-GSC-12817-1] c 33 N83-29590
- High voltage power supply  
[NASA-CASE-GSC-12818-1] c 33 N83-29594
- High voltage v-groove solar cell  
[NASA-CASE-LEW-13401-2] c 44 N83-32177



## HIGHWAYS

Traffic survey system — using optical scanners  
[NASA-CASE-MFS-22631-1] c 66 N76-19888

## HINGES

Foldable beam  
[NASA-CASE-LAR-12077-1] c 31 N81-25259  
Self-locking mechanical center joint — for space construction  
[NASA-CASE-LAR-12864-1] c 37 N82-29606

## HISTOGRAMS

Data compression system  
[NASA-CASE-XNP-09785] c 08 N69-21928

## HOLDERS

Water cooled contactor for anode in carbon arc mechanism  
[NASA-CASE-XMS-03700] c 15 N69-24266  
Quick disconnect latch and handle combination Patent  
[NASA-CASE-MFS-11132] c 15 N71-17649  
Holder for crystal resonators Patent  
[NASA-CASE-XNP-03637] c 15 N71-21311  
Adjustable force probe  
[NASA-CASE-MFS-20760] c 14 N72-33377  
Fifth wheel  
[NASA-CASE-FRC-10081-1] c 37 N77-14477  
Combined docking and grasping device  
[NASA-CASE-MFS-23088-1] c 37 N77-23483  
Plural output optometric sample cell and analysis system  
[NASA-CASE-NPO-10233-1] c 74 N78-33913  
Method and apparatus for holding two separate metal pieces together for welding  
[NASA-CASE-GSC-12318-1] c 37 N80-23655  
Head for high speed spinner having a vacuum chuck — holding silicon dioxide chips for etching  
[NASA-CASE-NPO-15227-1] c 37 N81-33482  
Scriber for silicon wafers  
[NASA-CASE-NPO-15539-1] c 37 N82-11469  
Liquid immersion apparatus for minute articles  
[NASA-CASE-MFS-25363-1] c 37 N82-12441  
Spray coating apparatus having a rotatable workpiece holder  
[NASA-CASE-ARC-11110-1] c 37 N82-24492  
Compression test apparatus  
[NASA-CASE-MSC-18723-1] c 35 N83-21312  
Apparatus and method for inspecting a bearing ball — eddy current inspection technique  
[NASA-CASE-MFS-25833-1] c 35 N83-21316  
Holding fixture for a hot stamping press  
[NASA-CASE-GSC-12619-1] c 37 N84-12491  
Hot melt recharge system — repairing damaged or missing tiles on space shuttle orbiter  
[NASA-CASE-LAR-12881-1] c 27 N84-14323  
Method and apparatus for gripping uniaxial fibrous composite materials  
[NASA-CASE-LEW-13758-1] c 24 N84-27829

## HOLE DISTRIBUTION (MECHANICS)

Thermocouple installation  
[NASA-CASE-NPO-13540-1] c 35 N77-14409

## HOLE MOBILITY

Depositing semiconductor films utilizing a thermal gradient  
[NASA-CASE-XKS-04614] c 15 N69-21460

## HOLLOW

Dual membrane hollow fiber fuel cell and method of operating same  
[NASA-CASE-NPO-13732-1] c 44 N79-10513

## HOLLOW CATHODES

Hydrogen hollow cathode ion source  
[NASA-CASE-LEW-12940-1] c 72 N80-33186  
Hollow cathode apparatus  
[NASA-CASE-NPO-15560-1] c 75 N84-18993

## HOLOGRAPHIC INTERFEROMETRY

Interferometric angle monitor  
[NASA-CASE-GSC-12614-1] c 74 N83-32577  
Method of and apparatus for double-exposure holographic interferometry  
[NASA-CASE-MFS-25405-1] c 35 N84-22929

## HOLOGRAPHY

Focused image holography with extended sources Patent  
[NASA-CASE-ERC-10019] c 16 N71-15551  
Hybrid holographic system using reflected and transmitted object beams simultaneously Patent  
[NASA-CASE-MFS-20074] c 16 N71-15565  
Recording and reconstructing focused image holograms Patent  
[NASA-CASE-ERC-10017] c 16 N71-15567  
Method and means for recording and reconstructing holograms without use of a reference beam Patent  
[NASA-CASE-ERC-10020] c 16 N71-26154  
Multiple image storing system for high speed projectile holography  
[NASA-CASE-MFS-20596] c 14 N72-17324  
Holographic thin film analyzer  
[NASA-CASE-MFS-20823-1] c 16 N73-30478

Method and apparatus for checking the stability of a setup for making reflection type holograms  
[NASA-CASE-MFS-21455-1] c 35 N74-15146

Real time moving scene holographic camera system  
[NASA-CASE-MFS-21087-1] c 35 N74-17153

Holography utilizing surface plasmon resonances  
[NASA-CASE-MFS-22040-1] c 35 N74-26946

Holographic system for nondestructive testing  
[NASA-CASE-MFS-21704-1] c 35 N75-25124

Real time, large volume, moving scene holographic camera system  
[NASA-CASE-MFS-22537-1] c 35 N75-27328

Holographic motion picture camera with Doppler shift compensation  
[NASA-CASE-MFS-22517-1] c 35 N76-18402

Optical process for producing classification maps from multispectral data  
[NASA-CASE-MSC-14472-1] c 43 N77-10584

HOMING DEVICES  
Location identification system  
[NASA-CASE-ERC-10324] c 07 N72-25173

HONEYCOMB CORES  
Method of making inflatable honeycomb Patent  
[NASA-CASE-XLA-03492] c 15 N71-22713

Method of forming shapes from planar sheets of thermosetting materials  
[NASA-CASE-NPO-11036] c 15 N72-24522

Honeycomb core structures of minimal surface tubule sections  
[NASA-CASE-ERC-10363] c 18 N72-25541

HONEYCOMB STRUCTURES  
Method for making a heat insulating and ablative structure  
[NASA-CASE-XMS-01108] c 15 N69-24322

Inflatable honeycomb Patent  
[NASA-CASE-XLA-00204] c 32 N70-36536

Fluid flow control valve Patent  
[NASA-CASE-XLE-00703] c 15 N71-15967

Method and apparatus for making a heat insulating and ablative structure Patent  
[NASA-CASE-XMS-02009] c 33 N71-20834

Honeycomb panel and method of making same Patent  
[NASA-CASE-XMF-01402] c 18 N71-21651

Cryogenic thermal insulation Patent  
[NASA-CASE-XMF-05046] c 33 N71-28892

Honeycomb panels formed of minimal surface periodic tubule layers  
[NASA-CASE-ERC-10364] c 18 N72-25540

Bonding or repairing process  
[NASA-CASE-MSC-12357] c 15 N73-12489

Insert facing tool — manually operated cutting tool for forming studs in honeycomb material  
[NASA-CASE-MFS-21485-1] c 37 N74-25968

Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575

Honeycomb-laminate composite structure  
[NASA-CASE-ARC-10913-1] c 24 N78-15180

Method of making a composite sandwich lattice structure  
[NASA-CASE-LAR-11898-2] c 24 N78-17149

Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-1] c 24 N79-16915

HOOKS  
Line hook with loop expander  
[NASA-CASE-LAR-12875-1] c 37 N83-20156

HORIZON SCANNERS  
Electromagnetic mirror drive system  
[NASA-CASE-XLA-03724] c 14 N69-27461

Multi-lobar scan horizon sensor Patent  
[NASA-CASE-XGS-00809] c 21 N70-35427

Attitude orientation of spin-stabilized space vehicles Patent  
[NASA-CASE-XLA-00281] c 21 N70-36943

Amplifier clamping circuit for horizon scanner Patent  
[NASA-CASE-XGS-01784] c 10 N71-20782

Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent  
[NASA-CASE-XNP-06957] c 14 N71-21088

Infrared horizon locator  
[NASA-CASE-LAR-10726-1] c 14 N73-20475

HORIZONTAL SPACECRAFT LANDING  
Variable-geometry winged reentry vehicle Patent  
[NASA-CASE-XLA-00241] c 31 N70-37986

HORIZONTAL TAIL SURFACES  
Translating horizontal tail Patent  
[NASA-CASE-XLA-08801-1] c 02 N71-11043

HORN ANTENNAS  
Antenna beam-shaping apparatus Patent  
[NASA-CASE-XNP-00611] c 09 N70-35219

Parabolic reflector horn feed with spillover correction Patent  
[NASA-CASE-XNP-00540] c 09 N70-35382

Horn feed having overlapping apertures Patent  
[NASA-CASE-GSC-10452] c 07 N71-12396

Dual mode horn antenna Patent  
[NASA-CASE-XNP-01057] c 07 N71-15907

Multi-purpose antenna employing dish reflector with plural coaxial horn feeds  
[NASA-CASE-NPO-11264] c 07 N72-25174

Horn antenna having V-shaped corrugated slots  
[NASA-CASE-LAR-11112-1] c 32 N76-15330

Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector  
[NASA-CASE-NPO-13568-1] c 32 N76-21365

Reflex feed system for dual frequency antenna with frequency cutoff means  
[NASA-CASE-NPO-14022-1] c 32 N78-31321

Dual band combiner for horn antenna  
[NASA-CASE-NPO-14519-1] c 32 N80-23524

Collapsible corrugated horn antenna  
[NASA-CASE-LAR-11745-1] c 32 N80-29539

Multifrequency broadband polarized horn antenna  
[NASA-CASE-NPO-14588-1] c 32 N81-25278

HOT CATHODES  
Ion thruster cathode  
[NASA-CASE-XLE-07087] c 06 N69-39889

HOT PRESSING  
Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28729

Holding fixture for a hot stamping press  
[NASA-CASE-GSC-12619-1] c 37 N84-12491

HOT WORKING  
Method for forming plastic materials Patent  
[NASA-CASE-XMS-05516] c 15 N71-17803

HOT-WIRE ANEMOMETERS  
Metallic hot wire anemometer — for high speed wind tunnel tests  
[NASA-CASE-ARC-10911-1] c 35 N77-20400

Method for making a hot wire anemometer and product thereof  
[NASA-CASE-ARC-10900-1] c 35 N77-24454

HOT-WIRE FLOWMETERS  
Hot wire liquid level detector for cryogenic fluids Patent  
[NASA-CASE-XLE-00454] c 23 N71-17802

Flow separation detector  
[NASA-CASE-ARC-11046-1] c 35 N78-14364

Hot foil transducer skin friction sensor  
[NASA-CASE-LAR-12321-1] c 35 N82-24470

HOUSINGS  
Sealed cabinetry Patent  
[NASA-CASE-MSC-12168-1] c 09 N71-18600

Open type urine receptacle  
[NASA-CASE-MSC-12324-1] c 05 N72-22093

Universal environment package with sectional component housing  
[NASA-CASE-KSC-10031] c 15 N72-22486

Gas flow control device  
[NASA-CASE-NPO-11479] c 15 N73-13462

Cryogenic gyroscope housing — with annular disks for gas spin-up  
[NASA-CASE-MFS-21136-1] c 35 N74-18323

Heat transfer device  
[NASA-CASE-NPO-11120-1] c 34 N74-18552

Deformable bearing seat  
[NASA-CASE-LEW-12527-1] c 37 N77-32500

HOVERING  
Gravity stabilized flying vehicle Patent  
[NASA-CASE-MSC-12111-1] c 02 N71-11039

HUBBLE SPACE TELESCOPE  
System for the measurement of ultra-low stray light levels — determining the adequacy of large space telescope systems  
[NASA-CASE-MFS-23513-1] c 74 N79-11865

HUGONIOT EQUATION OF STATE  
Determining particle density using known material Hugoniot curves  
[NASA-CASE-LAR-11059-1] c 76 N75-12810

HULLS (STRUCTURES)  
Hydrofoil Patent  
[NASA-CASE-XLA-00229] c 12 N70-33305

HUMAN BEINGS  
Skeletal stressing method and apparatus Patent  
[NASA-CASE-ARC-10100-1] c 05 N71-24738

Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067

HUMAN BODY  
Mass measuring system Patent  
[NASA-CASE-XMS-03371] c 05 N70-42000

Biomedical electrode arrangement Patent  
[NASA-CASE-XFR-10856] c 05 N71-11189

Garments for controlling the temperature of the body Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147

Tilting table for ergometer and for other biomedical devices  
[NASA-CASE-MFS-21010-1] c 05 N73-30078

Method and system for in vivo measurement of bone tissue using a two level energy source  
[NASA-CASE-MSC-14276-1] c 52 N77-14737



## HUMAN FACTORS ENGINEERING

Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152

Harness assembly Patent  
[NASA-CASE-MFS-14671] c 05 N71-12341

Multiple circuit switch apparatus with improved pivot actuator structure Patent  
[NASA-CASE-XAC-03777] c 10 N71-15909

Three-axis finger tip controller for switches Patent  
[NASA-CASE-XAC-02405] c 09 N71-16089

Extravehicular tunnel suit system Patent  
[NASA-CASE-MSC-12243-1] c 05 N71-24728

EEG sleep analyzer and method of operation Patent  
[NASA-CASE-MSC-13282-1] c 05 N71-24729

Spacesuit mobility joints  
[NASA-CASE-ARC-11058-1] c 54 N78-31735

Spacesuit torso closure  
[NASA-CASE-ARC-11100-1] c 54 N78-31736

Apparatus and method of inserting a microelectrode in body tissue or the like using vibration means  
[NASA-CASE-NPO-13910-1] c 52 N79-27836

Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-2] c 52 N81-25661

Urine collection apparatus --- feminine hygiene  
[NASA-CASE-MSC-18381-1] c 52 N81-28740

Spectrally balanced chromatic landing approach lighting system  
[NASA-CASE-ARC-10990-1] c 04 N82-16059

Thermal garment  
[NASA-CASE-XMS-03694-1] c 54 N82-29002

Kinesimetric method and apparatus  
[NASA-CASE-MSC-18929-1] c 39 N83-20280

Shoulder and hip joint for hard space suits and the like  
[NASA-CASE-ARC-11534-1] c 54 N84-33021

**HUMAN PERFORMANCE**  
Color perception tester  
[NASA-CASE-KSC-10278] c 05 N72-16015

**HUMAN REACTIONS**  
Reaction tester  
[NASA-CASE-MSC-13604-1] c 05 N73-13114

**HUMAN WASTES**  
Reduced gravity fecal collector seat and urinal  
[NASA-CASE-MFS-22102-1] c 54 N74-20725

Automatic biowaste sampling  
[NASA-CASE-MSC-14640-1] c 54 N76-14804

Absorbent product to absorb fluids --- for collection of human wastes  
[NASA-CASE-MSC-18223-1] c 24 N82-29362

Absorbent product and articles made therefrom  
[NASA-CASE-MSC-18223-2] c 54 N84-11758

**HUMIDITY**  
Passive intrusion detection system  
[NASA-CASE-NPO-13804-1] c 33 N80-23559

Apparatus for supplying conditioned air at a substantially constant temperature and humidity  
[NASA-CASE-GSC-12191-1] c 31 N80-32583

**HYBRID CIRCUITS**  
Hermetically sealable package for hybrid solid-state electronic devices and the like  
[NASA-CASE-MSC-20181-1] c 33 N82-28549

Hybrid power semiconductor switch  
[NASA-CASE-LEW-13922-1] c 33 N84-11389

Integrating IR detector imaging systems  
[NASA-CASE-NPO-15805-1] c 74 N84-28590

**HYBRID COMPUTERS**  
Adaptive voting computer system  
[NASA-CASE-MSC-13932-1] c 62 N74-14920

**HYBRID PROPELLANTS**  
Solid propellant liner Patent  
[NASA-CASE-XNP-09744] c 27 N71-16392

**HYDRAULIC CONTROL**  
Shear modulated fluid amplifier Patent  
[NASA-CASE-MFS-10412] c 12 N71-17578

Multiple orifice throttle valve Patent  
[NASA-CASE-XNP-09698] c 15 N71-18580

Fluidic-thermochromic display device Patent  
[NASA-CASE-ERC-10031] c 12 N71-18603

Hydraulic transformer Patent  
[NASA-CASE-MFS-20830] c 15 N71-30028

Hydraulic drain means for servo-systems  
[NASA-CASE-NPO-10316-1] c 37 N77-22479

**HYDRAULIC EQUIPMENT**  
Support apparatus for dynamic testing Patent  
[NASA-CASE-XMF-01772] c 11 N70-41677

Hydraulic support for dynamic testing Patent  
[NASA-CASE-XMF-03248] c 11 N71-10604

Hydraulic drive mechanism Patent  
[NASA-CASE-XMS-03252] c 15 N71-10658

Anti-backlash circuit for hydraulic drive system Patent  
[NASA-CASE-XNP-01020] c 03 N71-12260

Hydraulic grip Patent  
[NASA-CASE-XLA-05100] c 15 N71-17696

Shock absorber Patent  
[NASA-CASE-XMS-03722] c 15 N71-21530

Hydraulic casting of liquid polymers Patent  
[NASA-CASE-XNP-07659] c 06 N71-22975

Energy limiter for hydraulic actuators Patent  
[NASA-CASE-ARC-10131-1] c 15 N71-27754

Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent  
[NASA-CASE-XAC-00048] c 02 N71-29128

Hydraulic transformer Patent  
[NASA-CASE-MFS-20830] c 15 N71-30028

Mechanically extendible telescoping boom  
[NASA-CASE-NPO-11118] c 03 N72-25021

Geysering inhibitor for vertical cryogenic transfer pipe  
[NASA-CASE-KSC-10615] c 15 N73-12486

Redundant hydraulic control system for actuators  
[NASA-CASE-MFS-20944] c 15 N73-13466

Combined pressure regulator and shutoff valve  
[NASA-CASE-NPO-13201-1] c 37 N75-15050

Ultrasonically bonded valve assembly  
[NASA-CASE-NPO-13360-1] c 37 N75-25185

Filter regeneration systems --- a system for regenerating a system filter in a fluid flow line  
[NASA-CASE-MSC-14273-1] c 34 N75-33342

Quick disconnect filter coupling  
[NASA-CASE-MFS-22323-1] c 37 N76-14463

Actuator device for artificial leg  
[NASA-CASE-MFS-23225-1] c 52 N77-14735

Phase-angle controller for Stirling engines  
[NASA-CASE-NPO-14388-1] c 37 N81-17432

Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 43 N81-26509

Gas-to-hydraulic power converter  
[NASA-CASE-MSC-18794-1] c 44 N83-14693

Tubing and cable cutting tool  
[NASA-CASE-LAR-12786-1] c 37 N84-28085

**HYDRAULIC FLUIDS**  
Free-piston regenerative hot gas hydraulic engine  
[NASA-CASE-LEW-12274-1] c 37 N80-31790

**HYDRAULIC JETS**  
Warm fog dissipation using large volume water sprays  
[NASA-CASE-MFS-25962-1] c 09 N84-32398

**HYDRAZINE ENGINES**  
Reciprocating engines  
[NASA-CASE-MSC-16239-1] c 37 N81-32510

**HYDRAZINE NITROFORM**  
Hydrazinium nitroformate propellant with saturated polymeric hydrocarbon binder  
[NASA-CASE-NPO-12015] c 27 N73-16764

**HYDRAZINES**  
Ignition means for monopropellant Patent  
[NASA-CASE-XNP-00876] c 28 N70-41311

Solder flux which leaves corrosion-resistant coating Patent  
[NASA-CASE-XNP-03459-2] c 18 N71-15688

Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions --- by adding potassium hydroxide to hydrazine  
[NASA-CASE-NPO-12122-1] c 24 N76-14203

**HYDROCARBON COMBUSTION**  
In-situ laser retorting of oil shale  
[NASA-CASE-LEW-12217-1] c 43 N78-14452

**HYDROCARBON FUEL PRODUCTION**  
Molten salt pyrolysis of latex --- synthetic hydrocarbon fuel production using the Guayule shrub  
[NASA-CASE-NPO-14315-1] c 27 N81-17261

Fluidized bed liquefaction of biomass  
[NASA-CASE-NPO-15907-1] c 25 N83-36121

**HYDROCARBON FUELS**  
Apparatus for making a metal slurry product Patent  
[NASA-CASE-XLE-00010] c 15 N70-33382

Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-2] c 44 N76-29700

Hydrogen rich gas generator  
[NASA-CASE-NPO-13464-2] c 44 N76-29704

Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912

**HYDROCARBONS**  
Hydrazinium nitroformate propellant with saturated polymeric hydrocarbon binder  
[NASA-CASE-NPO-12015] c 27 N73-16764

Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-1] c 37 N76-16446

Combustion engine --- for air pollution control  
[NASA-CASE-NPO-13671-1] c 37 N77-31497

Curable liquid hydrocarbon prepolymers containing hydroxyl groups and process for producing same  
[NASA-CASE-NPO-13137-1] c 27 N80-32514

Technique for measuring gas conversion factors  
[NASA-CASE-LAR-13220-1] c 35 N84-32786

**HYDROCHLORIC ACID**  
Indicator providing continuous indication of the presence of a specific pollutant in air  
[NASA-CASE-NPO-13474-1] c 45 N76-21742

**HYDROCRACKING**  
Fluidized bed coal liquefaction  
[NASA-CASE-NPO-15891-1] c 25 N83-36120

## HYDROFOILS

Hydrofoil Patent  
[NASA-CASE-XLA-00229] c 12 N70-33305

**HYDROFORMING**  
Hydroforming techniques using epoxy molds Patent  
[NASA-CASE-XLE-05641-1] c 15 N71-26346

**HYDROGEN**  
Method for detecting hydrogen gas  
[NASA-CASE-XMF-03873] c 06 N69-39733

Prevention of pressure build-up in electrochemical cells Patent  
[NASA-CASE-XGS-01419] c 03 N70-41864

Pulse activated polarographic hydrogen detector Patent  
[NASA-CASE-XMF-06531] c 14 N71-17575

Hydrogen leak detection device Patent  
[NASA-CASE-MFS-11537] c 14 N71-20442

Analysis of hydrogen-deuterium mixtures  
[NASA-CASE-NPO-11322] c 06 N72-25146

Hydrogen fire blink detector  
[NASA-CASE-MFS-15063] c 14 N72-25412

Process for separation of dissolved hydrogen from water by use of palladium and process for coating palladium with palladium black  
[NASA-CASE-MSC-13335-1] c 06 N72-31140

Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency  
[NASA-CASE-HQN-10654-1] c 16 N73-13489

Method of producing a storage bulb for an atomic hydrogen maser  
[NASA-CASE-NPO-13050-1] c 36 N75-15029

Atomic standard with variable storage volume  
[NASA-CASE-GSC-11895-1] c 35 N76-15436

Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-1] c 37 N76-16446

Hydrogen-bromine secondary battery  
[NASA-CASE-NPO-13237-1] c 44 N76-18641

Hydrogen-rich gas generator  
[NASA-CASE-NPO-13464-1] c 44 N76-18642

Solar hydrogen generator  
[NASA-CASE-LAR-11361-1] c 44 N77-22607

Solar photolysis of water  
[NASA-CASE-NPO-13675-1] c 44 N77-32580

Method and automated apparatus for detecting coliform organisms  
[NASA-CASE-MSC-16777-1] c 51 N80-27067

Method of cross-linking polyvinyl alcohol and other water soluble resins  
[NASA-CASE-LEW-13103-1] c 27 N80-32516

State-of-charge coulometer  
[NASA-CASE-NPO-15759-1] c 35 N82-26630

**HYDROGEN ATOMS**  
Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-1] c 28 N78-24365

Atomic hydrogen storage --- cryotrapping and magnetic field strength  
[NASA-CASE-LEW-12081-2] c 28 N80-20402

Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-3] c 28 N81-14103

**HYDROGEN EMBRITTLEMENT**  
Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions --- by adding potassium hydroxide to hydrazine  
[NASA-CASE-NPO-12122-1] c 24 N76-14203

**HYDROGEN ENGINES**  
Hydrogen-fueled engine  
[NASA-CASE-NPO-13763-1] c 44 N78-33526

**HYDROGEN FUELS**  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-2] c 44 N76-29700

Hydrogen rich gas generator  
[NASA-CASE-NPO-13464-2] c 44 N76-29704

Hydrogen-rich gas generator  
[NASA-CASE-NPO-13560-1] c 44 N77-10636

Combustion engine system  
[NASA-CASE-NPO-14565-2] c 25 N83-19826

**HYDROGEN IONS**  
Hydrogen hollow cathode ion source  
[NASA-CASE-LEW-12940-1] c 72 N80-33186

**HYDROGEN OXYGEN FUEL CELLS**  
Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
[NASA-CASE-XLE-04526] c 03 N71-11052

Passively regulated water electrolysis rocket engine Patent  
[NASA-CASE-XGS-08729] c 28 N71-14044

**HYDROGEN PEROXIDE**  
Decomposition unit Patent  
[NASA-CASE-XMS-00583] c 28 N70-38504

**HYDROGEN PRODUCTION**  
Start up system for hydrogen generator used with an internal combustion engine  
[NASA-CASE-NPO-13849-1] c 28 N80-10374

Thermochemical generation of hydrogen  
[NASA-CASE-NPO-15015-1] c 25 N82-28368

## HYDROGENATION

Production of high purity silicon carbide Patent  
[NASA-CASE-XLA-00158] c 26 N70-36805

Compact hydrogenator  
[NASA-CASE-NPO-11682-1] c 35 N74-15127

## HYDROLOGY

Radar target for remotely sensing hydrological phenomena  
[NASA-CASE-LAR-12344-1] c 43 N80-18498

## HYDROLYSIS

Hydrodesulfurization of chlorinated coal  
[NASA-CASE-NPO-15304-1] c 25 N83-31743

## HYDROPYROLYSIS

Fluidized bed coal liquefaction  
[NASA-CASE-NPO-15891-1] c 25 N83-36120

## HYDROSTATIC PRESSURE

Method and apparatus for simulating gravitational forces on a living organism  
[NASA-CASE-MSC-20202-1] c 54 N84-16803

## HYDROSTATICS

Hydrostatic bearing support  
[NASA-CASE-LEW-11158-1] c 37 N77-28486

## HYDROXIDES

Method for determining presence of OH in magnesium oxide  
[NASA-CASE-NPO-10774] c 06 N72-17095

Separator for alkaline electric batteries and method of making  
[NASA-CASE-GSC-10018-1] c 44 N82-24644

Synthesis of dawsonites --- for use in fire extinguishing operations  
[NASA-CASE-ARC-11326-1] c 25 N83-33977

## HYDROXYL COMPOUNDS

Synthesis of polyformals  
[NASA-CASE-ARC-11244-1] c 23 N82-16174

## HYGIENE

Urine collection apparatus --- feminine hygiene  
[NASA-CASE-MSC-18381-1] c 52 N81-28740

## HYGROMETERS

Polymeric electrolytic hygrometer  
[NASA-CASE-NPO-13948-1] c 35 N78-25391

Trace water sensor  
[NASA-CASE-NPO-15722-1] c 35 N83-20084

## HYGROSCOPICITY

Method of evaluating moisture barrier properties of encapsulating materials Patent  
[NASA-CASE-NPO-10051] c 18 N71-24934

## HYPERFINE STRUCTURE

Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142

## HYPERGOLIC ROCKET PROPELLANTS

Apparatus for igniting solid propellants Patent  
[NASA-CASE-XLE-00207] c 28 N70-33375

Small rocket engine Patent  
[NASA-CASE-XLE-00685] c 28 N70-41992

Method of igniting solid propellants Patent  
[NASA-CASE-XLE-01988] c 27 N71-15634

## HYPERSONIC AIRCRAFT

Multistage aerospace craft --- perspective drawings of conceptual design  
[NASA-CASE-XMF-02263] c 05 N74-10907

## HYPERSONIC FLIGHT

Hyperersonic airbreathing missile  
[NASA-CASE-LAR-12264-1] c 15 N78-32168

## HYPERSONIC FLOW

Hyperersonic test facility Patent  
[NASA-CASE-XLA-05378] c 11 N71-21475

## HYPERSONIC SPEED

Reentry vehicle leading edge Patent  
[NASA-CASE-XLA-00165] c 31 N70-33242

Landing arrangement for aerospace vehicle Patent  
[NASA-CASE-XLA-00805] c 31 N70-38010

Variable geometry manned orbital vehicle Patent  
[NASA-CASE-XLA-03691] c 31 N71-15674

High speed flight vehicle control Patent  
[NASA-CASE-XLA-08967] c 02 N71-27088

Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
[NASA-CASE-LAR-10578-1] c 12 N73-25262

Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
[NASA-CASE-LAR-10612-1] c 12 N73-28144

## HYPERSONIC VEHICLES

Techniques for insulating cryogenic fuel containers Patent  
[NASA-CASE-XLA-01967] c 31 N70-42015

## HYPERSONIC WIND TUNNELS

Sound shield  
[NASA-CASE-LAR-12883-1] c 71 N83-17235

## HYPERTHERMIA

Hyperthermia heating apparatus --- cancer therapy  
[NASA-CASE-NPO-14549-2] c 52 N82-33996

## HYPERVELOCITY GUNS

Dust particle injector for hypervelocity accelerators Patent  
[NASA-CASE-XGS-06628] c 24 N71-16213

Hypervelocity gun Patent  
[NASA-CASE-XAC-05902] c 11 N71-18578

Collapsible pistons  
[NASA-CASE-MSC-13789-1] c 11 N73-32152

Hypervelocity gun --- using both electric and chemical energy for projectile propulsion  
[NASA-CASE-XLE-03186-1] c 09 N79-21084

## HYPERVELOCITY IMPACT

Method of and device for determining the characteristics and flux distribution of micrometeorites --- scanning puncture holes in sheet material with photoelectric cell  
[NASA-CASE-NPO-12127-1] c 91 N74-13130

## HYPERVELOCITY PROJECTILES

Impact measuring technique  
[NASA-CASE-LAR-10913] c 14 N72-16282

Multiple image storing system for high speed projectile holography  
[NASA-CASE-MFS-20596] c 14 N72-17324

## HYPERVELOCITY WIND TUNNELS

Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925

Hypersonic test facility Patent  
[NASA-CASE-XLA-05378] c 11 N71-21475

## HYSTERESIS

Belleville spring assembly with elastic guides  
[NASA-CASE-XNP-09452] c 15 N69-27504

## IDENTIFYING

Lightning discharge identification system  
[NASA-CASE-KSC-11099-1] c 47 N82-24779

## IGNITERS

Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784

Remote fire stack igniter --- with solenoid-controlled valve  
[NASA-CASE-MFS-21675-1] c 25 N74-33378

Molded composite pyrogen igniter for rocket motors --- solid propellant ignition  
[NASA-CASE-LAR-12018-1] c 20 N78-24275

Plasma igniter for internal combustion engine  
[NASA-CASE-NPO-13828-1] c 37 N79-11405

## IGNITION

Magnetically controlled plasma accelerator Patent  
[NASA-CASE-XLA-00327] c 25 N71-29184

Device and method for frictionally testing materials for ignitability  
[NASA-CASE-MSC-20622-1] c 14 N84-22596

## IGNITION LIMITS

High voltage pulse generator Patent  
[NASA-CASE-MSC-12178-1] c 09 N71-13518

## IGNITION SYSTEMS

Apparatus for igniting solid propellants Patent  
[NASA-CASE-XLE-00207] c 28 N70-33375

Ignition system for monopropellant combustion devices Patent  
[NASA-CASE-XNP-00249] c 28 N70-38249

Rocket motor system Patent  
[NASA-CASE-XLE-00323] c 28 N70-38505

Ignition means for monopropellant Patent  
[NASA-CASE-XNP-00876] c 28 N70-41311

Sustained arc ignition system  
[NASA-CASE-LEW-12444-1] c 33 N77-26385

## IGNITION TEMPERATURE

Autoignition test cell Patent  
[NASA-CASE-KSC-10198] c 11 N71-28629

## ILLUMINATORS

Image magnification adapter for cameras Patent  
[NASA-CASE-XMF-03844-1] c 14 N71-26474

Illumination system including a virtual light source Patent  
[NASA-CASE-HQN-10781] c 23 N71-30292

Focal plane array optical proximity sensor  
[NASA-CASE-NPO-15155-1] c 74 N81-22894

## IMAGE CONTRAST

Video signal enhancement system with dynamic range compression and modulation index expansion Patent  
[NASA-CASE-NPO-10343] c 07 N71-27341

Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932

## IMAGE CONVERTERS

Deep trap, laser activated image converting system  
[NASA-CASE-NPO-13131-1] c 36 N75-19652

Resistive anode image converter  
[NASA-CASE-HQN-10876-1] c 33 N76-27473

Wedge immersed thermistor bolometers  
[NASA-CASE-XGS-01245-1] c 35 N79-33449

Photocapacitive image converter  
[NASA-CASE-LAR-12513-1] c 44 N82-32841

## IMAGE CORRELATORS

Multiple hologram recording and readout system Patent  
[NASA-CASE-ERC-10151] c 16 N71-29131

Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-11213-1] c 35 N75-15014

Azimuth correlator for real-time synthetic aperture radar image processing  
[NASA-CASE-NPO-14019-1] c 32 N79-14268

An electro-optical Doppler tracker means and method for optical correlation of synthetic aperture radar data  
[NASA-CASE-NPO-14998-1] c 33 N81-15194

Servomechanism for Doppler shift compensation in optical correlator for synthetic aperture radar  
[NASA-CASE-NPO-14998-1] c 32 N83-18975

Optical stereo video signal processor --- line of sight tracking  
[NASA-CASE-MFS-25752-1] c 74 N83-21950

## IMAGE DISSECTOR TUBES

Apparatus for calibrating an image dissector tube  
[NASA-CASE-MFS-22208-1] c 33 N75-26244

Electronic optical transfer function analyzer  
[NASA-CASE-MFS-21672-1] c 74 N76-19935

## IMAGE ENHANCEMENT

Method and means for an improved electron beam scanning system Patent  
[NASA-CASE-ERC-10552] c 09 N71-12539

Physical correction filter for improving the optical quality of an image  
[NASA-CASE-HQN-10542-1] c 74 N75-25706

Method of obtaining intensified image from developed photographic films and plates  
[NASA-CASE-MFS-23461-1] c 35 N79-10389

## IMAGE FILTERS

Motion picture camera for optical pyrometry Patent  
[NASA-CASE-XLA-00062] c 14 N70-33254

Compact spectroradiometer  
[NASA-CASE-HQN-10683] c 14 N71-34389

Physical correction filter for improving the optical quality of an image  
[NASA-CASE-HQN-10542-1] c 74 N75-25706

## IMAGE INTENSIFIERS

Magnifying image intensifier  
[NASA-CASE-GSC-12010-1] c 74 N78-18905

Method of obtaining intensified image from developed photographic films and plates  
[NASA-CASE-MFS-23461-1] c 35 N79-10389

## IMAGE PROCESSING

Azimuth correlator for real-time synthetic aperture radar image processing  
[NASA-CASE-NPO-14019-1] c 32 N79-14268

Interleaving device  
[NASA-CASE-GSC-12111-2] c 33 N81-29342

Clutter free synthetic aperture radar correlator  
[NASA-CASE-NPO-14035-1] c 32 N83-19968

The 3-dimensional and tomographic imaging device for X-ray and gamma-ray emitting objects  
[NASA-CASE-GSC-12851-1] c 35 N83-20083

Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768

## IMAGE RESOLUTION

Constant magnification optical tracking system  
[NASA-CASE-NPO-14813-1] c 74 N82-24072

## IMAGE ROTATION

Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978

## IMAGE TUBES

Image tube --- deriving electron beam replica of image  
[NASA-CASE-GSC-11602-1] c 33 N74-21850

System for producing chroma signals  
[NASA-CASE-MSC-14683-1] c 74 N77-18893

## IMAGES

Image magnification adapter for cameras Patent  
[NASA-CASE-XMF-03844-1] c 14 N71-26474

Stereoscopic television system and apparatus  
[NASA-CASE-ARC-10160-1] c 23 N72-27728

## IMAGING TECHNIQUES

Optical mirror apparatus Patent  
[NASA-CASE-ERC-10001] c 23 N71-24868

Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence  
[NASA-CASE-GSC-11133-1] c 23 N72-11568

Phototransistor imaging system  
[NASA-CASE-MFS-20809] c 23 N73-13660

Multispectral imaging system  
[NASA-CASE-MSC-12404-1] c 23 N73-13661

Multiple pass reimaging optical system  
[NASA-CASE-ARC-10194-1] c 23 N73-20741

Ritchey-Chretien Telescope  
[NASA-CASE-GSC-11487-1] c 14 N73-30393

Data storage, image tube type  
[NASA-CASE-MSC-14053-1] c 60 N74-12888

Optical instruments  
[NASA-CASE-MSC-14096-1] c 74 N74-15095

- Electron microscope aperture system  
[NASA-CASE-ARC-10448-3] c 35 N77-14408  
Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932  
Full color hybrid display for aircraft simulators — landing aids  
[NASA-CASE-ARC-10903-1] c 09 N78-18083  
Chromatically corrected virtual image display — lens design for flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N79-14892  
Multispectral imaging and analysis system — using charge coupled devices and linear arrays  
[NASA-CASE-NPO-13691-1] c 43 N79-17288  
System and method for obtaining wide screen Schlieren photographs  
[NASA-CASE-NPO-14174-1] c 74 N79-20856  
Low intensity X-ray and gamma-ray imaging device — fiber optics  
[NASA-CASE-GSC-12263-1] c 74 N79-20857  
Diffraction grating configuration for X-ray and ultraviolet focusing  
[NASA-CASE-GSC-12357-1] c 74 N80-21140  
Multispectral scanner optical system  
[NASA-CASE-MSC-18255-1] c 74 N80-33210  
System for forming a quadrifield image comprising angularly related fields of view of a three dimensional object  
[NASA-CASE-NPO-14219-1] c 74 N81-17886  
Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403  
Image readout device with electronically variable spatial resolution  
[NASA-CASE-LAR-12633-1] c 33 N82-24416  
Method and apparatus for Delta K synthetic aperture radar measurement of ocean current  
[NASA-CASE-NPO-15704-1] c 32 N82-28502  
Low intensity X-ray and gamma-ray spectrometer  
[NASA-CASE-GSC-12587-1] c 35 N82-32659  
Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541  
X-ray imaging mirror system and method of producing the same  
[NASA-CASE-NPO-15828-1] c 74 N83-30222  
Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-2] c 32 N83-31918  
High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898  
Real-time 3-D X-ray and gamma-ray viewer  
[NASA-CASE-GSC-12640-1] c 74 N84-11920  
Multispectral linear array multiband selection device  
[NASA-CASE-GSC-12911-1] c 35 N84-25018  
Optical scanner  
[NASA-CASE-GSC-12897-1] c 74 N84-25450  
Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768
- IMIDES**  
Imidazopyrrolone/imide copolymers Patent  
[NASA-CASE-XLA-08802] c 06 N71-11238  
Molding process for imidazopyrrolone polymers  
[NASA-CASE-LAR-10547-1] c 31 N74-13177  
Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854  
Process for preparing phthalocyanine polymers  
[NASA-CASE-ARC-11511-1] c 23 N84-16259  
Polyphenylene ethers with imide linking groups  
[NASA-CASE-LAR-12980-1] c 27 N84-22749
- IMINES**  
Synthesis of polymeric schiff bases by schiff-base exchange reactions Patent  
[NASA-CASE-XMF-08651] c 06 N71-11238  
Direct synthesis of polymeric schiff bases from two amines and two aldehydes Patent  
[NASA-CASE-XMF-08655] c 06 N71-11239  
Synthesis of polymeric schiff bases by reaction of acetals and amine compounds Patent  
[NASA-CASE-XMF-08652] c 06 N71-11243  
Aromatic diamine-aromatic dialdehyde high molecular weight Schiff base polymers prepared in a monofunctional Schiff base Patent  
[NASA-CASE-XMF-03074] c 06 N71-24740
- IMMOBILIZATION**  
Stretcher Patent  
[NASA-CASE-XMF-06589] c 05 N71-23159  
Absolute focus lock for microscopes  
[NASA-CASE-LAR-10184] c 14 N72-22445  
Spine immobilization apparatus  
[NASA-CASE-ARC-11167-1] c 52 N81-25662
- IMPACT**  
Impact energy absorbing system utilizing fractureable material  
[NASA-CASE-NPO-10671] c 15 N72-20443

- Cosmic dust or other similar outer space particles impact location detector  
[NASA-CASE-GSC-11291-1] c 25 N72-33696  
Impact position detector for outer space particles  
[NASA-CASE-GSC-11829-1] c 35 N75-27331  
Insulation bonding test system  
[NASA-CASE-MFS-25882-1] c 27 N83-18903
- IMPACT ACCELERATION**  
Suspended mass impact damper Patent  
[NASA-CASE-LAR-10193-1] c 15 N71-27146
- IMPACT DAMAGE**  
Micrometeoroid penetration measuring device Patent  
[NASA-CASE-XLA-00841] c 14 N71-23240  
Curved cap corrugated sheet  
[NASA-CASE-LAR-12884-1] c 18 N84-33450
- IMPACT LOADS**  
Force transducer Patent  
[NASA-CASE-XAC-01101] c 14 N70-41957  
Impact testing machine Patent  
[NASA-CASE-XNP-04817] c 14 N71-23225
- IMPACT RESISTANCE**  
Electric storage battery  
[NASA-CASE-NPO-11021] c 03 N72-20032  
Hybrid composite laminate structures  
[NASA-CASE-LEW-12118-1] c 24 N77-27188
- IMPACT STRENGTH**  
High impact pressure regulator Patent  
[NASA-CASE-NPO-10175] c 14 N71-18625
- IMPACT TESTING MACHINES**  
Lunar penetrometer Patent  
[NASA-CASE-XLA-00934] c 14 N71-22765  
Impact testing machine Patent  
[NASA-CASE-XNP-04817] c 14 N71-23225  
Impacting device for testing insulation  
[NASA-CASE-MFS-25882-2] c 37 N84-33807
- IMPACT TESTS**  
Impacting device for testing insulation  
[NASA-CASE-MFS-25882-2] c 37 N84-33807
- IMPACT TOLERANCES**  
High impact antenna Patent  
[NASA-CASE-NPO-10231] c 07 N71-26101  
Vehicular impact absorption system  
[NASA-CASE-NPO-14014-1] c 37 N79-10420  
Improved impact tolerant material  
[NASA-CASE-LAR-12887-1] c 24 N84-20649
- IMPEDANCE**  
Reactanceless bandpass amplifier  
[NASA-CASE-GSC-12788-1] c 33 N83-12333  
Low noise tuned amplifier  
[NASA-CASE-GSC-12567-1] c 33 N84-22887
- IMPEDANCE MATCHING**  
Signal multiplexer  
[NASA-CASE-XGS-01110] c 07 N69-24334  
Reflectometer for receiver input impedance match measurement Patent  
[NASA-CASE-XNP-10843] c 07 N71-11267  
Radio frequency coaxial high pass filter Patent  
[NASA-CASE-XGS-01418] c 09 N71-23573  
Triaxial antenna Patent  
[NASA-CASE-XGS-02290] c 07 N71-28809
- IMPEDANCE MEASUREMENT**  
High impedance measuring apparatus Patent  
[NASA-CASE-XMS-08589-1] c 09 N71-20569  
Apparatus for measuring semiconductor device resistance  
[NASA-CASE-NPO-14424-1] c 33 N80-32650
- IMPLANTATION**  
Telemeter adaptable for implanting in an animal Patent  
[NASA-CASE-XAC-05708] c 05 N71-12342  
Magnetic electrical connectors for biomedical percutaneous implants  
[NASA-CASE-KSC-11030-1] c 52 N77-25772  
Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744
- IMPLANTED ELECTRODES (BIOLOGY)**  
Pocket ECG electrode  
[NASA-CASE-ARC-11258-1] c 52 N80-33081  
Subcutaneous electrode structure  
[NASA-CASE-ARC-11117-1] c 52 N81-14612  
Implantable electrical device  
[NASA-CASE-GSC-12560-1] c 52 N82-29863
- IMPLOSIONS**  
Hypervelocity gun Patent  
[NASA-CASE-XAC-05902] c 11 N71-18578
- IMPREGNATING**  
Composite lamination method  
[NASA-CASE-LAR-12019-1] c 24 N78-17150  
Insoluble polyelectrolyte and ion-exchange hollow fiber impregnated therewith  
[NASA-CASE-NPO-13530-1] c 25 N81-17187  
High temperature silicon carbide impregnated insulating fabrics  
[NASA-CASE-MSC-18832-1] c 27 N83-18908

- IMPULSE GENERATORS**  
Percutaneous connector device  
[NASA-CASE-KSC-10849-1] c 52 N77-14738
- IMPURITIES**  
Method of making impurity-type semiconductor electrical contacts Patent  
[NASA-CASE-XMF-01018] c 26 N71-17818  
Method of mitigating titanium impurities effects in p-type silicon material for solar cells  
[NASA-CASE-NPO-14635-1] c 44 N80-24741  
Electromigration process for the purification of molten silicon during crystal growth  
[NASA-CASE-NPO-14831-1] c 76 N82-30105
- IN-FLIGHT MONITORING**  
System for use in conducting wake investigation for a wing in flight — differential pressure measurements for drag investigations  
[NASA-CASE-FRC-11024-1] c 02 N80-28300
- INCIDENCE**  
Method of and means for testing a glancing-incidence mirror system of an X-ray telescope  
[NASA-CASE-MFS-22409-2] c 74 N78-15880
- INCIDENT RADIATION**  
Solar cell assembly — for use under high intensity illumination  
[NASA-CASE-LEW-11549-1] c 44 N77-19571  
X-ray imaging mirror system and method of producing the same  
[NASA-CASE-NPO-15828-1] c 74 N83-30222
- INCLINATION**  
Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029
- INCOHERENT SCATTERING**  
Rapidly pulsed, high intensity, incoherent light source  
[NASA-CASE-XLE-2529-3] c 33 N74-20859
- INDICATING INSTRUMENTS**  
Missile stage separation indicator and stage initiator Patent  
[NASA-CASE-XLA-00791] c 03 N70-39930  
Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01609] c 14 N71-10500  
Apparatus for the determination of the existence or non-existence of a bonding between two members Patent  
[NASA-CASE-MFS-13688] c 15 N71-18132  
Hydrogen fire detection system with logic circuit to analyze the spectrum of temporal variations of the optical spectrum  
[NASA-CASE-MFS-13130] c 10 N72-17173  
Fatigue failure load indicator  
[NASA-CASE-LAR-12027-1] c 39 N79-22537  
System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075  
Film advance indicator  
[NASA-CASE-LAR-12474-1] c 35 N82-26628
- INDIUM ALLOYS**  
Method for attaching a fused-quartz mirror to a conductive metal substrate  
[NASA-CASE-MFS-23405-1] c 26 N77-29260  
Solar cell collector  
[NASA-CASE-LEW-12552-1] c 44 N78-25527
- INDUCTANCE**  
Current dependent filter inductance  
[NASA-CASE-ERC-10139] c 09 N72-17154  
Inductance device with vacuum insulation  
[NASA-CASE-LEW-10330-1] c 09 N72-27226  
Direct reading inductance meter  
[NASA-CASE-NPO-13792-1] c 35 N77-32455
- INDUCTION HEATING**  
Induction furnace with perforated tungsten foil shielding Patent  
[NASA-CASE-XLE-04026] c 14 N71-23267  
Apparatus for use in the production of ribbon-shaped crystals from a silicon melt  
[NASA-CASE-NPO-14297-1] c 33 N81-19389  
Induction heating gun  
[NASA-CASE-LAR-12540-2] c 27 N82-24345  
One-step dual purpose joining technique  
[NASA-CASE-LAR-12595-1] c 33 N82-26571  
Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591
- INDUCTION MOTORS**  
Induction motor control system with voltage controlled oscillator circuit  
[NASA-CASE-MFS-21465-1] c 10 N73-32145  
Variable frequency inverter for ac induction motors with torque, speed and braking control  
[NASA-CASE-MFS-22088-1] c 33 N75-15874  
Power factor control system for AC induction motors  
[NASA-CASE-MFS-23280-1] c 33 N78-10376  
Three phase power factor controller  
[NASA-CASE-MFS-25535-1] c 33 N81-12330  
Power factor control system for ac induction motors  
[NASA-CASE-MFS-23988-1] c 33 N81-27395

- Motor power factor controller with a reduced voltage starter  
[NASA-CASE-MFS-25586-1] c 33 N82-11360
- Magnetic field control --- electromechanical torquing device  
[NASA-CASE-MFS-23828-1] c 33 N82-26569
- Solar powered actuator with continuously variable auxiliary power control  
[NASA-CASE-MFS-25637-1] c 44 N82-26780
- Electrical power generating system  
[NASA-CASE-MFS-25302-1] c 33 N83-28319
- Triac failure detector  
[NASA-CASE-MFS-25607-1] c 33 N83-34190
- Control system for an induction motor with energy recovery  
[NASA-CASE-MFS-25477-1] c 33 N84-14424
- Three phase power factor controller  
[NASA-CASE-MFS-25535-2] c 33 N84-22885
- Motor power control circuit for ac induction motors  
[NASA-CASE-MFS-25323-1] c 33 N84-22886
- Coupling an induction motor type generator to ac power lines --- making windmill generators compatible with public power lines  
[NASA-CASE-MFS-25302-2] c 33 N84-33660
- Three-phase power factor controller with induced EMF sensing  
[NASA-CASE-MFS-25852-1] c 33 N84-33661
- INDUCTORS**
- Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01609] c 14 N71-10500
- Vacuum deposition apparatus Patent  
[NASA-CASE-XMF-01667] c 15 N71-17647
- Constant frequency output two stage induction machine systems Patent  
[NASA-CASE-ERC-10065] c 09 N71-27364
- Elimination of current spikes in buck power converters  
[NASA-CASE-NPO-14505-1] c 33 N81-19393
- INDUSTRIAL PLANTS**
- Process for making diamonds  
[NASA-CASE-MFS-20698-2] c 15 N73-19457
- INDUSTRIAL WASTES**
- Process of forming catalytic surfaces for wet oxidation reactions  
[NASA-CASE-MSC-14831-1] c 25 N78-10225
- Process for purification of waste water produced by a Kraft process pulp and paper mill  
[NASA-CASE-NPO-13847-2] c 85 N79-17747
- INERT ATMOSPHERE**
- Method for retarding dye fading during archival storage of developed color photographic film --- inert atmosphere  
[NASA-CASE-MFS-23250-1] c 35 N82-11432
- INERTIA**
- Bidirectional step torque filter with zero backlash characteristic Patent  
[NASA-CASE-XGS-04227] c 15 N71-21744
- Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-2] c 44 N83-29805
- INERTIAL CONFINEMENT FUSION**
- Method and apparatus for producing gas-filled hollow spheres --- target pellets for inertial confinement fusion  
[NASA-CASE-NPO-14596-3] c 31 N83-31896
- Contactless pellet fabrication  
[NASA-CASE-NPO-15592-1] c 71 N84-16940
- INERTIAL GUIDANCE**
- Hermetic sealed vibration damper Patent  
[NASA-CASE-MSC-10959] c 15 N71-26243
- INERTIAL NAVIGATION**
- Autonomous navigation system --- gyroscopic pendulum for air navigation  
[NASA-CASE-ARC-11257-1] c 04 N81-21047
- INERTIAL PLATFORMS**
- Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02184] c 15 N71-20813
- Azimuth laying system Patent  
[NASA-CASE-XMF-01669] c 21 N71-23289
- Temperature compensated digital inertial sensor --- circuit for maintaining inertial element of gyroscope or accelerometer at constant position  
[NASA-CASE-NPO-13044-1] c 35 N74-15094
- Attitude control system  
[NASA-CASE-MFS-22787-1] c 15 N77-10113
- Rim inertial measuring system  
[NASA-CASE-LAR-12052-1] c 18 N81-29152
- INERTIAL REFERENCE SYSTEMS**
- Attitude control system Patent  
[NASA-CASE-XGS-04393] c 21 N71-14159
- Inertial reference apparatus Patent  
[NASA-CASE-XAC-03107] c 23 N71-16098
- INFLATABLE SPACECRAFT**
- Thermal control of space vehicles Patent  
[NASA-CASE-XLA-01291] c 33 N70-36617
- Passive communication satellite Patent  
[NASA-CASE-XLA-00210] c 30 N70-40309
- Rotating mandrel for assembly of inflatable devices Patent  
[NASA-CASE-XLA-04143] c 15 N71-17687
- Method of making an inflatable panel Patent  
[NASA-CASE-XLA-03497] c 15 N71-23052
- Orbital escape device Patent  
[NASA-CASE-XMS-06162] c 31 N71-28851
- INFLATABLE STRUCTURES**
- Aeroflexible structures  
[NASA-CASE-XLA-06095] c 01 N69-39981
- Life raft Patent  
[NASA-CASE-XMS-00863] c 05 N70-34857
- Life preserver Patent  
[NASA-CASE-XMS-00864] c 05 N70-36493
- Inflatable honeycomb Patent  
[NASA-CASE-XLA-00204] c 32 N70-36536
- Inflatable radar reflector unit Patent  
[NASA-CASE-XMS-00893] c 07 N70-40063
- Excessive temperature warning system Patent  
[NASA-CASE-XLA-01926] c 14 N71-15620
- Inflation system for balloon type satellites Patent  
[NASA-CASE-XGS-03351] c 31 N71-16081
- Aerodynamic protection for space flight vehicles Patent  
[NASA-CASE-XNP-02507] c 31 N71-17679
- Self supporting space vehicle Patent  
[NASA-CASE-XLA-00117] c 31 N71-17680
- Conforming polisher for aspheric surface of revolution Patent  
[NASA-CASE-XGS-02884] c 15 N71-22705
- Method of making inflatable honeycomb Patent  
[NASA-CASE-XLA-03492] c 15 N71-22713
- Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27191
- Inflatable tether Patent  
[NASA-CASE-XMS-10993] c 15 N71-28936
- Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708
- Modification of one man life raft  
[NASA-CASE-LAR-10241-1] c 54 N74-14845
- Emergency space-suit helmet  
[NASA-CASE-MSC-10954-1] c 54 N78-18761
- Pressure control valve --- inflating flexible bladders  
[NASA-CASE-ARC-11251-1] c 37 N81-17433
- Pneumatic inflatable end effector  
[NASA-CASE-MFS-23696-1] c 54 N81-26718
- Inflatable device for installing strain gage bridges  
[NASA-CASE-FRC-11068-1] c 35 N84-12443
- INFORMATION RETRIEVAL**
- Multiple hologram recording and readout system Patent  
[NASA-CASE-ERC-10151] c 16 N71-29131
- INFRARED DETECTORS**
- Temperature sensitive capacitor device  
[NASA-CASE-XNP-09750] c 14 N69-39937
- Sight switch using an infrared source and sensor Patent  
[NASA-CASE-XMF-03934] c 09 N71-22985
- Infrared detectors  
[NASA-CASE-LAR-10728-1] c 14 N73-12445
- Doped Josephson tunneling junction for use in a sensitive IR detector  
[NASA-CASE-NPO-13348-1] c 33 N75-31332
- Multispectral scanner optical system  
[NASA-CASE-MSC-18255-1] c 74 N80-33210
- Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360
- Broadband optical radiation detector  
[US-PATENT-4,262,198] c 74 N83-19597
- Integrating IR detector imaging systems  
[NASA-CASE-NPO-15805-1] c 74 N84-28590
- INFRARED INSTRUMENTS**
- Infrared scanner Patent  
[NASA-CASE-XLA-00120] c 21 N70-33181
- INFRARED INTERFEROMETERS**
- Over-under double-pass interferometer  
[NASA-CASE-NPO-13999-1] c 35 N78-18395
- INFRARED LASERS**
- Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver  
[NASA-CASE-NPO-11919-1] c 35 N74-11284
- Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942
- Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode  
[NASA-CASE-GSC-12168-1] c 31 N79-17029
- INFRARED RADIATION**
- High-speed infrared furnace  
[NASA-CASE-XLE-10466] c 17 N69-25147
- High field CdS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088
- Optical system with reflective baffles  
[NASA-CASE-ARC-11502-1] c 74 N84-26400
- INFRARED REFLECTION**
- Electromagnetic radiation energy arrangement --- coatings for solar energy absorption and infrared reflection  
[NASA-CASE-WOO-00428-1] c 32 N79-19186
- INFRARED SCANNERS**
- Infrared scanner Patent  
[NASA-CASE-XLA-00120] c 21 N70-33181
- Infrared horizon locator  
[NASA-CASE-LAR-10728-1] c 14 N73-20475
- INFRARED SPECTRA**
- Diatom infrared gasdynamic laser --- for producing different wavelengths  
[NASA-CASE-ARC-10370-1] c 36 N75-31426
- INFRARED SPECTROMETERS**
- Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699
- Cooled echelle grating spectrometer --- for space telescope applications  
[NASA-CASE-NPO-14372-1] c 35 N80-26635
- INFRARED SPECTROSCOPY**
- Apparatus for providing a servo drive signal in a high-speed stepping interferometer  
[NASA-CASE-NPO-13569-2] c 35 N79-14348
- INFRASONIC FREQUENCIES**
- Resonant infrasonic gauging apparatus  
[NASA-CASE-MSC-11847-1] c 14 N72-11363
- INGOTS**
- Improved ingot slicing machine  
[NASA-CASE-NPO-15483-1] c 37 N82-28642
- INHIBITORS**
- Inhibited solid propellant composition containing beryllium hydride  
[NASA-CASE-NPO-10866-1] c 28 N79-14228
- INITIATORS (EXPLOSIVES)**
- Missile stage separation indicator and stage initiator Patent  
[NASA-CASE-XLA-00791] c 03 N70-39930
- Safe-arm initiator Patent  
[NASA-CASE-LAR-10372] c 09 N71-18599
- Electroexplosive device  
[NASA-CASE-NPO-13858-1] c 28 N79-11231
- INJECTION**
- Thickness measuring and injection device Patent  
[NASA-CASE-MFS-20261] c 14 N71-27005
- High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523
- INJECTORS**
- Rocket propellant injector Patent  
[NASA-CASE-XLE-00103] c 28 N70-33241
- Rocket engine injector Patent  
[NASA-CASE-XLE-00111] c 28 N70-38199
- Injector for bipropellant rocket engines Patent  
[NASA-CASE-XMF-00148] c 28 N70-38710
- Dust particle injector for hypervelocity accelerators Patent  
[NASA-CASE-XGS-06628] c 24 N71-16213
- Control valve and co-axial variable injector Patent  
[NASA-CASE-XNP-09702] c 15 N71-17654
- Rocket engine injector Patent  
[NASA-CASE-XLE-03157] c 28 N71-24736
- Bipropellant injector  
[NASA-CASE-XNP-09461] c 28 N72-23809
- Coaxial injector for reaction motors  
[NASA-CASE-NPO-11095] c 15 N72-25455
- Injector for use in high voltage isolators for liquid feed lines  
[NASA-CASE-NPO-11377] c 15 N73-27406
- Rocket injector head  
[NASA-CASE-XMF-04592-1] c 20 N79-21125
- INKS**
- Multicolor printing plate joining  
[NASA-CASE-LEW-13598-1] c 35 N84-22930
- INLET FLOW**
- High pressure four-way valve Patent  
[NASA-CASE-XNP-00214] c 15 N70-38908
- Gas turbine combustor Patent  
[NASA-CASE-LEW-10286-1] c 28 N71-28915
- Airflow control system for supersonic inlets  
[NASA-CASE-LEW-11188-1] c 02 N74-20646
- Variably positioned guide vanes for aerodynamic choking  
[NASA-CASE-LAR-10642-1] c 07 N74-31270
- Shock position sensor for supersonic inlets --- measuring pressure in the throat of a supersonic inlet  
[NASA-CASE-LEW-11915-1] c 35 N76-14431
- Method for fabricating a mass spectrometer inlet leak  
[NASA-CASE-GSC-12077-1] c 35 N77-24455
- Gas turbine engine with recirculating bleed  
[NASA-CASE-LEW-12452-1] c 07 N78-25089
- Self stabilizing sonic inlet  
[NASA-CASE-LEW-11890-1] c 05 N79-24976
- INLET NOZZLES**
- Rocket injector head  
[NASA-CASE-XMF-04592-1] c 20 N79-21125

## INLET PRESSURE

- Fluid jet amplifier  
[NASA-CASE-XLE-03512] c 12 N69-21466  
Shock position sensor for supersonic inlets --- measuring pressure in the throat of a supersonic inlet  
[NASA-CASE-LEW-11915-1] c 35 N76-14431

## INOCULATION

- Automatic inoculating apparatus --- includes movable carriage, drive motor, and swabbing motor  
[NASA-CASE-LAR-11074-1] c 51 N75-13502

## INORGANIC COATINGS

- Diffuse reflective coating  
[NASA-CASE-GSC-11214-1] c 06 N73-13128  
Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge  
[NASA-CASE-ARC-11057-1] c 27 N78-31233

## INORGANIC COMPOUNDS

- Method of making membranes  
[NASA-CASE-XNP-04264] c 03 N69-21337  
Inorganic solid film lubricants Patent  
[NASA-CASE-XMF-03988] c 15 N71-21403  
Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10098-1] c 06 N71-24739  
Inorganic thermal control coatings  
[NASA-CASE-MFS-20011] c 18 N72-22566  
Inorganic-organic separators for alkaline batteries  
[NASA-CASE-LEW-12649-1] c 44 N78-25530  
Method for the preparation of inorganic single crystal and polycrystalline electronic materials  
[NASA-CASE-XLE-02545-1] c 76 N79-21910

## INORGANIC PEROXIDES

- Process for preparing higher oxides of the alkali and alkaline earth metals  
[NASA-CASE-ARC-10992-1] c 26 N78-32229  
Process for the preparation of calcium superoxide  
[NASA-CASE-ARC-11053-1] c 25 N79-10162

## INPUT

- Remodulator filter Patent  
[NASA-CASE-NPO-10198] c 09 N71-24806  
Active RC networks  
[NASA-CASE-ARC-10020] c 10 N72-17172  
High-speed multiplexing of keyboard data inputs  
[NASA-CASE-NPO-14554-1] c 60 N81-27814

## INPUT/OUTPUT ROUTINES

- Analog to digital converter  
[NASA-CASE-NPO-13385-1] c 33 N76-18345

## INSERTION

- Apparatus and method of inserting a microelectrode in body tissue or the like using vibration means  
[NASA-CASE-NPO-13910-1] c 52 N79-27836

## INSERTION LOSS

- Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent  
[NASA-CASE-XNP-01193] c 10 N71-16057

## INSPECTION

- Automatic visual inspection system for microelectronics  
[NASA-CASE-NPO-13282] c 38 N78-17396  
Method for refurbishing and processing parachutes  
[NASA-CASE-KSC-11042-1] c 09 N82-29330  
Apparatus and method for inspecting a bearing ball --- eddy current inspection technique  
[NASA-CASE-MFS-25833-1] c 35 N83-21316

## INSTALLING

- Device for installing rocket engines  
[NASA-CASE-MFS-19220-1] c 20 N76-22296  
Thermocouple installation  
[NASA-CASE-NPO-13540-1] c 35 N77-14409  
A method and technique for installing tight-weight fragile, high-temperature fiber insulation  
[NASA-CASE-MSC-18934-3] c 24 N82-26387  
Inflatable device for installing strain gage bridges  
[NASA-CASE-FRC-11068-1] c 35 N84-12443

## INSTRUMENT ERRORS

- Radiation direction detector including means for compensating for photocell aging Patent  
[NASA-CASE-XLA-00183] c 14 N70-40239

## INSTRUMENT FLIGHT RULES

- Controlled visibility device for an aircraft Patent  
[NASA-CASE-XFR-04147] c 11 N71-10748  
Inflight IFR procedures simulator  
[NASA-CASE-KSC-11218-1] c 09 N82-29331

## INSTRUMENT ORIENTATION

- Plurality of photosensitive cells on a pyramidal base for planetary trackers  
[NASA-CASE-XNP-04180] c 07 N69-39736  
Azimuth laying system Patent  
[NASA-CASE-XMF-01669] c 21 N71-23289  
Optical machine tool alignment indicator Patent  
[NASA-CASE-XAC-09489-1] c 15 N71-26673  
Solar energy powered heliostropes  
[NASA-CASE-GSC-10945-1] c 21 N72-31637

## INSTRUMENT PACKAGES

- Apparatus for ejection of an instrument cover  
[NASA-CASE-XMF-04132] c 15 N69-27502

- Method and apparatus for shock protection Patent  
[NASA-CASE-XLA-00482] c 15 N70-36409  
Foam generator Patent  
[NASA-CASE-XLA-00838] c 03 N70-36778  
Velocity package Patent  
[NASA-CASE-XLA-01339] c 31 N71-15692  
Processing for producing a sterilized instrument Patent  
[NASA-CASE-XNP-09763] c 14 N71-20461  
Thermal control canister  
[NASA-CASE-GSC-12253-1] c 34 N79-31523

## INSTRUMENTS

- Radio frequency shielded enclosure Patent  
[NASA-CASE-XMF-09422] c 07 N71-19436  
Linear differential pressure sensor Patent  
[NASA-CASE-XMF-01974] c 14 N71-22752  
Precision thrust gage Patent  
[NASA-CASE-XGS-02319] c 14 N71-22965  
Self-calibrating displacement transducer Patent  
[NASA-CASE-XLA-00781] c 09 N71-22999  
Sensing probe  
[NASA-CASE-LEW-10281-1] c 14 N72-17327  
Scientific experiment flexible mount  
[NASA-CASE-MSC-12372-1] c 31 N72-25842  
Magnetic suspension and pointing system  
[NASA-CASE-LAR-11889-2] c 37 N78-27424  
Rotary leveling base platform  
[NASA-CASE-ARC-10981-1] c 37 N78-27425

## INSULATED STRUCTURES

- Piping arrangement through a double chamber structure  
[NASA-CASE-XNP-08882] c 15 N69-39935

## INSULATION

- Electrode construction Patent  
[NASA-CASE-ARC-10043-1] c 05 N71-11193  
Foamed in place ceramic refractory insulating material Patent  
[NASA-CASE-XGS-02435] c 18 N71-22998  
Method of removing insulated material from insulated wires  
[NASA-CASE-FRC-10038] c 15 N72-20444  
Inductance device with vacuum insulation  
[NASA-CASE-LEW-10330-1] c 09 N72-27226  
Insulated electrocardiographic electrodes --- without paste electrolyte  
[NASA-CASE-MSC-14339-1] c 05 N75-24716  
Silica reusable surface insulation  
[NASA-CASE-ARC-10721-1] c 27 N76-22376  
Two-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-1] c 27 N76-22377  
Three-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-2] c 27 N76-23426  
Field effect transistor and method of construction thereof  
[NASA-CASE-MFS-23312-1] c 33 N78-27326  
Cork-resin ablative insulation for complex surfaces and method for applying the same  
[NASA-CASE-MFS-23626-1] c 24 N80-26388  
Impacting device for testing insulation  
[NASA-CASE-MFS-25862-2] c 37 N84-33807  
Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692

## INSULATORS

- Electrostatic thruster with improved insulators Patent  
[NASA-CASE-XLE-01902] c 28 N71-10574  
High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings  
[NASA-CASE-NPO-13690-1] c 27 N78-19302  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-2] c 33 N83-24763

## INTAKE SYSTEMS

- Inlet deflector for jet engines Patent  
[NASA-CASE-XLE-00388] c 28 N70-34788  
The engine air intake system  
[NASA-CASE-ARC-10761-1] c 07 N77-18154  
Fluid sampling device  
[NASA-CASE-GSC-12143-1] c 35 N77-32456  
Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278  
Reciprocating engines  
[NASA-CASE-MSC-16239-1] c 37 N81-32510

## INTEGRATED CIRCUITS

- Counter and shift register Patent  
[NASA-CASE-XNP-01753] c 08 N71-22897  
Pulse rise time and amplitude detector Patent  
[NASA-CASE-XMF-08804] c 09 N71-24717  
Method and apparatus for swept-frequency impedance measurements of welds  
[NASA-CASE-ARC-10176-1] c 15 N72-21464  
Integrated circuit including field effect transistor and cermet resistor  
[NASA-CASE-GSC-10835-1] c 09 N72-33205

- Derivation of a tangent function using an integrated circuit four-quadrant multiplier  
[NASA-CASE-MSC-13907-1] c 10 N73-26230  
Coaxial inverted geometry transistor having buried emitter  
[NASA-CASE-ARC-10330-1] c 09 N73-32112  
Integrated circuit package with lead structure and method of preparing the same  
[NASA-CASE-MFS-21374-1] c 33 N74-12951  
Integrated P-channel MOS gyrator  
[NASA-CASE-MFS-22343-1] c 33 N74-34638  
Four phase logic systems --- including integrated microcircuits  
[NASA-CASE-MSC-14240-1] c 33 N75-14957  
Integrable power gyrator --- with Z-matrix design using parallel transistors  
[NASA-CASE-MFS-22342-1] c 33 N75-30428  
Cross correlation anomaly detection system  
[NASA-CASE-NPO-13283] c 38 N78-17395  
Complementary DMOS-VMOS integrated circuit structure  
[NASA-CASE-GSC-12190-1] c 33 N79-12321  
A general logic structure for custom LSI circuits  
[NASA-CASE-NPO-14410-1] c 33 N79-25314  
Method for analyzing radiation sensitivity of integrated circuits  
[NASA-CASE-NPO-14350-1] c 33 N80-14332  
Solar cell system having alternating current output  
[NASA-CASE-LEW-12806-2] c 44 N81-12542  
Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348  
Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360  
Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884

## INTEGRATED OPTICS

- Integrated optics in an electrically scanned imaging Fourier transform spectrometer  
[NASA-CASE-NPO-15844-1] c 74 N83-12992

## INTEGRATORS

- Operational integrator Patent  
[NASA-CASE-NPO-10230] c 09 N71-12520  
Variable duration pulse integrator Patent  
[NASA-CASE-XLA-01219] c 10 N71-23084  
Variable width pulse integrator Patent  
[NASA-CASE-XLA-03356] c 10 N71-23315  
Feedback integrator with grounded capacitor Patent  
[NASA-CASE-XAC-10607] c 10 N71-23669  
High speed phase detector Patent  
[NASA-CASE-XNP-01306-2] c 09 N71-24596  
Adaptive control system for line-commutated inverters  
[NASA-CASE-MFS-25209-1] c 33 N83-35227

## INTERFACES

- Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092

## INTERFACIAL TENSION

- Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278  
Sphere forming method and apparatus  
[NASA-CASE-NPO-15070-1] c 31 N83-35176

## INTERFEROMETERS

- Apparatus for controlling the velocity of an electromechanical drive for interferometers and the like Patent  
[NASA-CASE-XGS-03532] c 14 N71-17627  
Incremental motion drive system Patent  
[NASA-CASE-XNP-08897] c 15 N71-17694  
Laser grating interferometer Patent  
[NASA-CASE-XLA-04295] c 16 N71-24170  
Fringe counter for interferometers Patent  
[NASA-CASE-LAR-10204] c 14 N71-27215  
Interferometer-polarimeter  
[NASA-CASE-NPO-11239] c 14 N73-12446  
Interferometric rotation sensor  
[NASA-CASE-ARC-10278-1] c 14 N73-25463  
High resolution Fourier interferometer-spectrophotopolarimeter  
[NASA-CASE-NPO-13604-1] c 35 N76-31490  
Apparatus for providing a servo drive signal in a high-speed stepping interferometer  
[NASA-CASE-NPO-13569-2] c 35 N79-14348  
Velocity servo for continuous scan Fourier interference spectrometer  
[NASA-CASE-NPO-14093-1] c 35 N80-20563  
Interferometer  
[NASA-CASE-NPO-14502-1] c 74 N81-17888  
Interferometer --- high resolution  
[NASA-CASE-NPO-14448-1] c 74 N81-29963  
Optical gyroscope system  
[NASA-CASE-NPO-14258-1] c 35 N81-33448  
Low noise lead screw positioner  
[NASA-CASE-NPO-15617-1] c 35 N82-33681

A dual differential interferometer  
[NASA-CASE-LAR-12966-1] c 71 N83-12969

Integrated optics in an electrically scanned imaging  
Fourier transform spectrometer  
[NASA-CASE-NPO-15844-1] c 74 N83-12992

Dual-beam skin friction interferometer  
[NASA-CASE-ARC-11354-1] c 74 N83-21949

Interferometric angle monitor  
[NASA-CASE-GSC-12614-1] c 74 N83-32577

**INTERFEROMETRY**  
Surface roughness measuring system --- synthetic  
aperture radar measurements of ocean wave height and  
terrain peaks  
[NASA-CASE-NPO-13862-1] c 35 N79-10391

Interferometric locating system  
[NASA-CASE-NPO-14173-1] c 04 N80-32359

**INTERLAYERS**  
Method of making a partial interlaminar separation  
composite system  
[NASA-CASE-LAR-12065-2] c 24 N81-33235

**INTERMEDIATE FREQUENCY AMPLIFIERS**  
Multichannel logarithmic RF level detector  
[NASA-CASE-LAR-11021-1] c 32 N76-14321

**INTERMETALLICS**  
Twisted multifilament superconductor  
[NASA-CASE-LEW-11726-1] c 26 N73-26752

Synthesis of superconducting compounds by explosive  
compaction of powders  
[NASA-CASE-MFS-20861-1] c 18 N73-32437

Improved nickel base coating alloy --- oxidation resistant  
coatings  
[NASA-CASE-LEW-13834-1] c 26 N83-24639

**INTERNAL COMBUSTION ENGINES**  
Fuel injection pump for internal combustion engines  
Patent  
[NASA-CASE-MS-C-12139-1] c 28 N71-14058

Continuous detonation reaction engine: Patent  
[NASA-CASE-XMF-06926] c 28 N71-22983

System for preconditioning a combustible vapor  
[NASA-CASE-NPO-12072] c 28 N72-22772

System for minimizing internal combustion engine  
pollution emission  
[NASA-CASE-NPO-13402-1] c 37 N76-18457

Combustion engine --- for air pollution control  
[NASA-CASE-NPO-13671-1] c 37 N77-31497

Hydrogen-fueled engine  
[NASA-CASE-NPO-13763-1] c 44 N78-33526

Plasma igniter for internal combustion engine  
[NASA-CASE-NPO-13828-1] c 37 N79-11405

Indicated mean-effective pressure instrument  
[NASA-CASE-LEW-12661-1] c 35 N78-14345

Start up system for hydrogen generator used with an  
internal combustion engine  
[NASA-CASE-NPO-13849-1] c 28 N80-10374

Supercritical fuel injection system  
[NASA-CASE-LEW-12990-1] c 07 N81-29129

Combustion engine system  
[NASA-CASE-NPO-14565-2] c 25 N83-19826

Automatic compression adjusting mechanism for internal  
combustion engines  
[NASA-CASE-MS-C-18807-1] c 37 N83-36483

Real time pressure signal system for a rotary engine  
[NASA-CASE-LEW-13622-1] c 07 N84-22559

**INTERPLANETARY SPACE**  
Heat shield Patent  
[NASA-CASE-XMS-00486] c 33 N70-33344

RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171

**INTERPLANETARY SPACECRAFT**  
Transpirationally cooled heat ablation system Patent  
[NASA-CASE-XMS-02677] c 31 N70-42075

**INTERPLANETARY TRAJECTORIES**  
Means for visually indicating flight paths of vehicles  
between the Earth, Venus, and Mercury Patent  
[NASA-CASE-XNP-00708] c 14 N70-35394

**INTERPROCESSOR COMMUNICATION**  
Multicomputer communication system  
[NASA-CASE-NPO-15433-1] c 62 N83-20634

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Method of and apparatus for generating an interstitial  
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Induction powered biological radiosonde  
[NASA-CASE-ARC-11120-1] c 52 N80-18691

**INTRAOCULAR PRESSURE**  
Intra-ocular pressure normalization technique and  
equipment  
[NASA-CASE-LEW-12955-1] c 52 N80-14684

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equipment  
[NASA-CASE-LEW-12723-1] c 52 N80-18690

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width and frequency  
[NASA-CASE-FRC-11055-1] c 33 N80-29583

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Inverter ratio failure detector  
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[NASA-CASE-MFS-22088-1] c 33 N75-15874

Solar cell system having alternating current output  
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Power converter  
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Inverter oscillator with voltage feedback  
[NASA-CASE-NPO-10760] c 09 N72-25254

Overload protection system for power inverter  
[NASA-CASE-NPO-13872-1] c 33 N78-10377

Module failure isolation circuit for paralleled inverters  
--- preventing system failure during power conditioning for  
spacecraft applications  
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Base drive for paralleled inverter systems  
[NASA-CASE-NPO-14163-1] c 33 N81-14220

Adaptive reference voltage generator for firing angle  
control of line-commutated inverters  
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Adaptive control system for line-commutated inverters  
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Method of using photovoltaic cell using  
poly-N-vinylcarbazole complex Patent  
[NASA-CASE-NPO-10373] c 03 N71-18698

Simple method of making photovoltaic junctions  
Patent  
[NASA-CASE-XNP-01960] c 09 N71-23027

Iodine generator for reclaimed water purification  
[NASA-CASE-MS-C-14632-1] c 54 N78-14784

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iododifluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016

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Production of high purity I-123  
[NASA-CASE-LEW-10518-1] c 24 N72-33681

Method of producing I-123 --- by bombardment of cesium  
causing spallation  
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[NASA-CASE-LEW-10278-1] c 15 N71-28582

Ion beam accelerator system  
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Method of making an ion beam sputter-etched  
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Ion sputter textured graphite electrode plates  
[NASA-CASE-LEW-12819-2] c 70 N84-28565

Improved heat exchanger for electrothermal devices  
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desired ions to deflect stable ions  
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System for monitoring the presence of neutrals in a  
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Ion and electron detector for use in an ICR  
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Method and apparatus for measurement of trap density  
and energy distribution in dielectric films  
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Ion thruster cathode  
[NASA-CASE-XLE-07087] c 06 N69-39889

High-vacuum condenser tank for ion rocket tests  
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[NASA-CASE-XLE-00168] c 11 N70-33278

Ion thruster cathode Patent Application  
[NASA-CASE-LEW-10814-1] c 28 N70-35422

Ion rocket Patent  
[NASA-CASE-XLE-00376] c 28 N70-37245

Rocket engine Patent  
[NASA-CASE-XLE-00342] c 28 N70-37980

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[NASA-CASE-XLE-00702] c 14 N70-40203

Apparatus for increasing ion engine beam density  
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[NASA-CASE-XLE-00519] c 28 N70-41576

Double optic system for ion engine Patent  
[NASA-CASE-XNP-02839] c 28 N70-41922

Electrostatic ion engine having a permanent magnetic  
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[NASA-CASE-XLE-01124] c 28 N71-14043

Electrostatic ion rocket engine Patent  
[NASA-CASE-XLE-02068] c 28 N71-15881

System for monitoring the presence of neutrals in a  
stream of ions Patent  
[NASA-CASE-XNP-02592] c 24 N71-20518

Construction and method of arranging a plurality of ion  
engines to form a cluster Patent  
[NASA-CASE-XNP-02923] c 28 N71-23081

Electronic cathode having a brush-like structure and a  
relatively thick oxide emissive coating Patent  
[NASA-CASE-XLE-04501] c 09 N71-23190

Ion engine casing construction and method of making  
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Propellant feed isolator Patent  
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Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field  
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Variable thrust ion engine utilizing thermally decomposable solid fuel Patent  
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Ion rocket Patent  
[NASA-CASE-XLE-00376] c 28 N70-37245  
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Method of producing porous tungsten ionizers for ion rocket engines Patent  
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Double optic system for ion engine Patent  
[NASA-CASE-XNP-02839] c 28 N70-41922  
Electron bombardment ion engine Patent  
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Baseline stabilization system for ionization detector Patent  
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Electron bombardment ion engine Patent  
[NASA-CASE-XNP-04124] c 28 N71-21822  
A multichannel photoionization chamber for absorption analysis Patent  
[NASA-CASE-ERC-10044-1] c 14 N71-27090  
Apparatus for ionization analysis  
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High-voltage cable Patent  
[NASA-CASE-XNP-00738] c 09 N70-38201  
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[NASA-CASE-MFS-21364-1] c 37 N74-18126

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Method and apparatus for calibrating the ionosphere and application to surveillance of geophysical events  
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Method and apparatus for calibrating the ionosphere and application to surveillance of geophysical events  
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Thin film microwave iris  
[NASA-CASE-LAR-10511-1] c 09 N72-29172

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[NASA-CASE-LEW-13653-1] c 44 N84-28205

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Coal desulfurization --- using iron pentacarbonyl  
[NASA-CASE-NPO-14272-1] c 25 N81-33246

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Solar sensor having coarse and fine sensing with matched preirradiated cells and method of selecting cells Patent  
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[NASA-CASE-XLE-00388] c 28 N70-34788  
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Jet aircraft configuration Patent  
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Abating exhaust noises in jet engines  
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Spacesuit mobility knee joints  
[NASA-CASE-ARC-11058-2] c 54 N79-24651

### JOINTS (JUNCTIONS)

Electrode and insulator with shielded dielectric junction  
[NASA-CASE-XLE-03778] c 09 N69-21542

Elastic universal joint Patent  
[NASA-CASE-XNP-00416] c 15 N70-36947

Portable alignment tool Patent  
[NASA-CASE-XMF-01452] c 15 N70-41371

Pressure garment joint Patent  
[NASA-CASE-XMS-09636] c 05 N71-12344

Technique of elbow bending small jacketed transfer lines Patent  
[NASA-CASE-XNP-10475] c 15 N71-24679

Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-26148

Frictionless universal joint Patent  
[NASA-CASE-NPO-10646] c 15 N71-28467

Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937

Universal restrainer and joint Patent  
[NASA-CASE-XNP-02278] c 15 N71-28951

Diffusion welding in air — solid state welding of butt joint by fusion welding, surface cleaning, and heating  
[NASA-CASE-LEW-11387-1] c 37 N74-18128

Bonded joint and method — for reducing peak shear stress in adhesive bonds  
[NASA-CASE-LAR-10900-1] c 37 N74-23064

Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546

Method of making an explosively welded scarf joint  
[NASA-CASE-LAR-11211-1] c 37 N75-12326

Latching device  
[NASA-CASE-MFS-21606-1] c 37 N75-19685

Method of determining bond quality of power transistors attached to substrates — X ray inspection of junction microstructure  
[NASA-CASE-MFS-21931-1] c 37 N75-26372

Externally supported internally stabilized flexible duct joint  
[NASA-CASE-MFS-19194-1] c 37 N76-14480

Wrist joint assembly  
[NASA-CASE-MFS-23311-1] c 54 N78-17676

Spacesuit mobility joints  
[NASA-CASE-ARC-11058-1] c 54 N78-31735

Thermal barrier pressure seal — shielding junctions between spacecraft control surfaces and structures  
[NASA-CASE-MSC-18134-1] c 37 N81-15363

Reusable captive blind fastener  
[NASA-CASE-MSC-18742-1] c 37 N82-26673

Interlocking wedge joint  
[NASA-CASE-LAR-12729-1] c 37 N82-26676

Pressure suit joint analyzer  
[NASA-CASE-ARC-11314-1] c 54 N82-26987

Self-locking mechanical center joint — for space construction  
[NASA-CASE-LAR-12864-1] c 37 N82-29606

Mechanical end joint system for structural column elements  
[NASA-CASE-LAR-12482-1] c 37 N82-32732

Automatic weld torch guidance control system  
[NASA-CASE-MFS-25807] c 37 N83-20154

Articulated joint for deployable structures  
[NASA-CASE-NPO-16038-1] c 37 N83-20157

Electrical rotary joint apparatus for large space structures  
[NASA-CASE-MFS-23981-1] c 07 N83-20944

Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859

Foldable self-erecting joint — space erectable structures  
[NASA-CASE-MSC-20635-1] c 18 N84-32424

Shoulder and hip joint for hard space suits and the like  
[NASA-CASE-ARC-11534-1] c 54 N84-33021

Doped Josephson tunneling junction for use in a sensitive IR detector  
[NASA-CASE-NPO-13348-1] c 33 N75-31332

Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348

Refrigeration apparatus  
[NASA-CASE-NPO-10309] c 15 N69-23190

Cycling Joule Thomson refrigerator  
[NASA-CASE-NPO-15251-1] c 31 N83-31897

### JOURNAL BEARINGS

Slit regulated gas journal bearing Patent  
[NASA-CASE-XNP-00478] c 15 N70-38620

Air bearing assembly for curved surfaces  
[NASA-CASE-MFS-20423] c 15 N72-11388

Journal bearings — for lubricant films  
[NASA-CASE-LEW-11076-1] c 37 N74-21061

Journal Bearings  
[NASA-CASE-LEW-11076-2] c 37 N74-32921

Lubricated journal bearing  
[NASA-CASE-LEW-11076-3] c 37 N75-30562

Fluid journal bearings  
[NASA-CASE-LEW-11076-4] c 37 N76-15461

Improved compliant hydrodynamic fluid journal bearing  
[NASA-CASE-LEW-13870-1] c 37 N84-22959

### JUNCTION DIODES

Phototransistor  
[NASA-CASE-MFS-20407] c 09 N73-19235

Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-2] c 33 N75-25041

Charge storage diode modulators and demodulators  
[NASA-CASE-NPO-10189-1] c 33 N77-21314

Integrating IR detector imaging systems  
[NASA-CASE-NPO-15805-1] c 74 N84-28590

### JUNCTION TRANSISTORS

Apparatus for ballasting high frequency transistors  
[NASA-CASE-XGS-05003] c 09 N69-24318

Semiconductor transducer device  
[NASA-CASE-EFC-10087-2] c 14 N72-31446

Method of determining bond quality of power transistors attached to substrates — X ray inspection of junction microstructure  
[NASA-CASE-MFS-21931-1] c 37 N75-26372

## K

### KAPTON (TRADEMARK)

Coated flexible laminate and method of its production  
[NASA-CASE-GSC-12913-1] c 27 N84-24807

### KEROGEN

Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912

### KEYING

High-speed multiplexing of keyboard data inputs  
[NASA-CASE-NPO-14554-1] c 60 N81-27814

### KIDNEY DISEASES

Aldehyde-containing urea-absorbing polysaccharides  
[NASA-CASE-NPO-13820-1] c 27 N77-30236

### KIDNEYS

Apparatus for disintegrating kidney stones  
[NASA-CASE-GSC-12652-1] c 52 N84-34913

### KINETIC ENERGY

Non-reusable kinetic energy absorber Patent  
[NASA-CASE-XLE-00810] c 15 N70-34861

Method and turbine for extracting kinetic energy from a stream of two-phase fluid  
[NASA-CASE-NPO-14130-1] c 34 N79-20335

### KINETIC FRICTION

Friction measuring apparatus Patent  
[NASA-CASE-XNP-08680] c 14 N71-22995

### KINETICS

Micrometeoroid analyzer  
[NASA-CASE-ARC-10443-1] c 14 N73-20477

### KRAFT PROCESS (WOODPULP)

Process for purification of waste water produced by a Kraft process pulp and paper mill  
[NASA-CASE-NPO-13847-2] c 85 N79-17747

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### LABORATORY EQUIPMENT

Stirring apparatus for plural test tubes Patent  
[NASA-CASE-XAC-06956] c 15 N71-21177

Gas purged dry box glove Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080

Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372

Variable angle tube holder  
[NASA-CASE-LAR-10507-1] c 11 N72-25284

Method for controlling vapor content of a gas  
[NASA-CASE-NPO-10633] c 03 N72-28025

Zero gravity liquid mixer  
[NASA-CASE-LAR-10195-1] c 15 N73-19458

Automatic real-time pair-feeding system for animals  
[NASA-CASE-ARC-10302-1] c 51 N74-15778

Automated single-slide staining device  
[NASA-CASE-LAR-11649-1] c 51 N77-27677

Machine for use in monitoring fatigue life for a plurality of elastomeric specimens  
[NASA-CASE-NPO-13731-1] c 39 N78-10493

The 2 deg/80 deg laboratory scattering photometer — particulate refractivity in hydrosols  
[NASA-CASE-GSC-12088-1] c 74 N78-13874

Automatic multiple-sample applicator and electrophoresis apparatus  
[NASA-CASE-ARC-10891-1] c 25 N78-14104

Microelectrophoretic apparatus and process  
[NASA-CASE-ARC-11121-1] c 25 N79-14169

Electrophoresis device  
[NASA-CASE-MFS-25426-1] c 25 N83-10126

Laboratory glassware rack for seismic safety  
[NASA-CASE-ARC-11422-1] c 35 N84-20808

## LACQUERS

Method for applying photographic resists to otherwise incompatible substrates  
[NASA-CASE-MSC-18107-1] c 27 N81-25209

## LADDERS

Dielectric based submillimeter backward wave oscillator circuit  
[NASA-CASE-LEW-13736-1] c 33 N84-27974

## LAMBERT SURFACE

Diffusely reflecting paints including polytetrafluoroethylene and method of manufacture  
[NASA-CASE-GSC-12883-1] c 27 N84-24806

## LAMINAR FLOW

Laminar flow enhancement Patent  
[NASA-CASE-NPO-10122] c 12 N71-17631  
Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure pressure levels during wind tunnel tests  
[NASA-CASE-LAR-12261-1] c 02 N80-20224  
Continuous laminar smoke generator --- visualizing flow around wind tunnel models  
[NASA-CASE-LAR-13014-1] c 28 N83-35158

## LAMINAR FLOW AIRFOILS

Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092

## LAMINATES

Multilayer porous ionizer Patent  
[NASA-CASE-XNP-04338] c 17 N71-23046  
Polyimide resin-fiberglass cloth laminates for printed circuit boards  
[NASA-CASE-MFS-20408] c 18 N73-12604  
Reinforced polyquinoxaline gasket and method of preparing the same --- resistant to ionizing radiation and liquid hydrogen temperatures  
[NASA-CASE-MFS-21364-1] c 37 N74-18126  
Method of laminating structural members  
[NASA-CASE-XLA-11028-1] c 24 N74-27035  
Bonding method in the manufacture of continuous regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260  
Transparent fire resistant polymeric structures  
[NASA-CASE-ARC-10813-1] c 27 N76-16230  
Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-19170  
Hybrid composite laminate structures  
[NASA-CASE-LEW-12118-1] c 24 N77-27188  
Honeycomb-laminate composite structure  
[NASA-CASE-ARC-10913-1] c 24 N78-15180  
Composite lamination method  
[NASA-CASE-LAR-12019-1] c 24 N78-17150  
Lightweight electrically-powered flexible thermal laminate --- made of metal and nonconductive yarns  
[NASA-CASE-MSC-12662-1] c 33 N79-12331  
Process for preparing high temperature polyimide film laminates  
[NASA-CASE-LAR-12742-1] c 24 N81-12174  
Method for alleviating thermal stress damage in laminates --- metal matrix composites  
[NASA-CASE-LEW-12493-1] c 24 N81-17170  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-2] c 24 N81-26179  
Method of making a partial interlaminar separation composite system  
[NASA-CASE-LAR-12065-2] c 24 N81-33235  
Fuselage structure using advanced technology fiber reinforced composites  
[NASA-CASE-LAR-11688-1] c 24 N82-26384  
Method of tracing contour patterns for use in making gradual contour resin matrix composites  
[NASA-CASE-ARC-11246-1] c 31 N83-34073  
Piezoelectric composite materials  
[NASA-CASE-LEW-12582-1] c 76 N83-34796  
Improved impact tolerant material  
[NASA-CASE-LAR-12887-1] c 24 N84-20649  
Fire and heat resistant laminating resins based on maleimide substituted aromatic cyclophosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697  
Coated flexible laminate and method of its production  
[NASA-CASE-GSC-12913-1] c 27 N84-24807

## LANDFORMS

Method for observing the features characterizing the surface of a land mass  
[NASA-CASE-FRC-11013-1] c 43 N81-17499

## LANDING AIDS

Altitude sensing device  
[NASA-CASE-XMS-01994-1] c 14 N72-17326  
Magnetic position detection method and apparatus  
[NASA-CASE-ARC-10179-1] c 21 N72-22619  
Full color hybrid display for aircraft simulators --- landing aids  
[NASA-CASE-ARC-10903-1] c 09 N78-18083

## LANDING GEAR

Pivotal shock absorbing pad assembly Patent  
[NASA-CASE-XMF-03856] c 31 N70-34159

Nose gear steering system for vehicle with main skids Patent  
[NASA-CASE-XLA-01804] c 02 N70-34160  
Landing pad assembly for aerospace vehicles Patent  
[NASA-CASE-XMF-02853] c 31 N70-36654  
Aircraft wheel spray drag alleviator Patent  
[NASA-CASE-XLA-01583] c 02 N70-36825  
Space craft soft landing system Patent  
[NASA-CASE-XMF-02108] c 31 N70-36845  
Double-acting shock absorber Patent  
[NASA-CASE-XMF-01045] c 15 N70-40354  
Landing gear Patent  
[NASA-CASE-XMF-01174] c 02 N70-41589  
Tire/wheel concept  
[NASA-CASE-LAR-11695-2] c 37 N81-24443

## LANDING MODULES

Double-acting shock absorber Patent  
[NASA-CASE-XMF-01045] c 15 N70-40354

## LANDING SIMULATION

Impact simulator Patent  
[NASA-CASE-XLA-00493] c 11 N70-34786

## LANTHANUM COMPOUNDS

Stabilized lanthanum sulphur compounds --- thermoelectric materials  
[NASA-CASE-NPO-16135-1] c 25 N83-24572

## LARGE SCALE INTEGRATION

A general logic structure for custom LSI circuits  
[NASA-CASE-NPO-14410-1] c 33 N79-25314  
General logic structure for custom LSI circuits  
[NASA-CASE-NPO-14410-2] c 33 N82-25440  
Combinational logic for generating gate drive signals for phase control rectifiers  
[NASA-CASE-MFS-25208-1] c 33 N83-10345  
Split-cross-bridge-resistor for testing for proper fabrication of integrated circuit  
[NASA-CASE-NPO-16021-1] c 33 N83-24769

## LARGE SPACE STRUCTURES

Structural members, method and apparatus  
[NASA-CASE-MSC-16217-1] c 31 N81-27323  
Electrical rotary joint apparatus for large space structures  
[NASA-CASE-MFS-23981-1] c 07 N83-20944  
Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591  
Beam connector apparatus and assembly  
[NASA-CASE-MFS-25134-1] c 31 N83-31895

## LASER ALTIMETERS

Sidelooking laser altimeter for a flight simulator  
[NASA-CASE-ARC-11312-1] c 36 N83-34304

## LASER APPLICATIONS

High power laser apparatus and system  
[NASA-CASE-XLE-2529-2] c 36 N75-27364  
Fiber distributed feedback laser  
[NASA-CASE-NPO-13531-1] c 36 N76-24553  
Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753  
Pseudo-backscatter laser Doppler velocimeter employing antiparallel-reflector in the forward direction  
[NASA-CASE-ARC-10970-1] c 36 N77-25501  
Compact pulsed laser having improved heat conductance  
[NASA-CASE-NPO-13147-1] c 36 N77-25502  
Laser extensometer  
[NASA-CASE-MFS-19259-1] c 36 N78-14380  
Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field  
[NASA-CASE-LEW-12465-1] c 25 N78-25148  
Volumetric direct nuclear pumped laser  
[NASA-CASE-LAR-12183-1] c 36 N79-18307  
Arrangement for damping the resonance in a laser diode  
[NASA-CASE-NPO-15980-1] c 36 N82-28618  
Method of an apparatus for measuring temperature and pressure --- remote sensing of the atmosphere  
[NASA-CASE-GSC-12558-1] c 35 N82-29580  
Ranging system --- industrial robotics  
[NASA-CASE-NPO-15865-1] c 74 N83-12991  
Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978  
Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680  
Laser activated MTOS microwave device  
[NASA-CASE-NPO-16112-1] c 36 N84-12463  
High-temperature, high-pressure optical cell  
[NASA-CASE-MFS-26000-1] c 74 N84-16986

## LASER CAVITIES

Laser apparatus  
[NASA-CASE-GSC-12237-1] c 36 N80-14384  
Laser Resonator  
[NASA-CASE-GSC-12565-1] c 36 N84-14509

## LASER DOPPLER VELOCIMETERS

Dual wavelength scanning Doppler velocimeter --- without perturbation of flow fields  
[NASA-CASE-ARC-10637-1] c 35 N75-16783  
Combined dual scatter, local oscillator laser Doppler velocimeter  
[NASA-CASE-ARC-10642-1] c 36 N76-14447  
Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493  
Pseudo-backscatter laser Doppler velocimeter employing antiparallel-reflector in the forward direction  
[NASA-CASE-ARC-10970-1] c 36 N77-25501  
Optical scanner --- laser doppler velocimeters  
[NASA-CASE-LAR-11711-1] c 74 N78-17866  
Versatile LDV burst simulator  
[NASA-CASE-LAR-11859-1] c 35 N79-14349  
Laser Doppler velocity simulator --- to induce frequency shift  
[NASA-CASE-LAR-12176-1] c 36 N80-16321  
Direction sensitive laser velocimeter --- determining the direction of particles using a helium-neon laser  
[NASA-CASE-LAR-12177-1] c 36 N81-24422  
Scanning afocal laser velocimeter projection lens system  
[NASA-CASE-LAR-12328-1] c 36 N82-32712  
Auto covariance computer  
[NASA-CASE-LAR-12968-1] c 35 N83-34273  
Powder fed sheared dispersal particle generator  
[NASA-CASE-LAR-12785-1] c 37 N84-16561  
Spinning disk calibration method and apparatus for laser Doppler velocimeter  
[NASA-CASE-ARC-11510-1] c 35 N84-25015

## LASER DRILLING

In-situ laser retorting of oil shale  
[NASA-CASE-LEW-12217-1] c 43 N78-14452

## LASER FUSION

Laser surface fusion of plasma sprayed ceramic turbine seals  
[NASA-CASE-LEW-13269-1] c 18 N83-20996

## LASER GUIDANCE

Scanning afocal laser velocimeter projection lens system  
[NASA-CASE-LAR-12328-1] c 36 N82-32712

## LASER GYROSCOPES

Optical gyroscope system  
[NASA-CASE-NPO-14258-1] c 35 N81-33448  
Laser pulse detection method and apparatus  
[NASA-CASE-NPO-16030-1] c 36 N84-25037

## LASER HEATING

Electric power generation system directory from laser power  
[NASA-CASE-NPO-13308-1] c 36 N75-30524  
Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15767

## LASER INTERFEROMETRY

Dual-beam skin friction interferometer  
[NASA-CASE-ARC-11354-1] c 74 N83-21949

## LASER MATERIALS

Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp  
[NASA-CASE-LAR-11341-1] c 36 N75-19655  
Solar pumped laser  
[NASA-CASE-LAR-12870-1] c 36 N84-16542

## LASER MODE LOCKING

Laser system with an antiresonant optical ring  
[NASA-CASE-HQN-10844-1] c 36 N75-19653  
Dually mode locked Nd:YAG laser  
[NASA-CASE-GSC-11746-1] c 36 N75-19654  
Length controlled stabilized mode-lock Nd:YAG laser  
[NASA-CASE-GSC-11571-1] c 36 N77-25499  
Geodetic distance measuring apparatus  
[NASA-CASE-GSC-12609-2] c 36 N83-29681

## LASER MODES

Optical pump and driver system for lasers  
[NASA-CASE-ERC-10283] c 16 N72-25485  
Acoustically controlled distributed feedback laser  
[NASA-CASE-NPO-13175-1] c 36 N75-31427

## LASER OUTPUTS

Method and apparatus for wavelength tuning of liquid lasers  
[NASA-CASE-ERC-10187] c 16 N69-31343  
Laser Doppler system for measuring three dimensional vector velocity Patent  
[NASA-CASE-MFS-20386] c 21 N71-19212  
Amplitude modulated laser transmitter Patent  
[NASA-CASE-XMS-04269] c 16 N71-22895  
Laser fluid velocity detector Patent  
[NASA-CASE-XAC-10770-1] c 16 N71-24828  
Laser calibrator Patent  
[NASA-CASE-XLA-03410] c 16 N71-25914  
Method and apparatus for optical modulating a light signal Patent  
[NASA-CASE-GSC-10216-1] c 23 N71-26722  
Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135

- Optical frequency waveguide and transmission system Patent  
[NASA-CASE-HQN-10541-4] c 16 N71-27183
- Laser communication system for controlling several functions at a location remote to the laser  
[NASA-CASE-LAR-10311-1] c 16 N73-16536
- Power supply for carbon dioxide lasers  
[NASA-CASE-GSC-11222-1] c 16 N73-32391
- Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control  
[NASA-CASE-NPO-11317-2] c 36 N74-13205
- Apparatus for scanning the surface of a cylindrical body  
[NASA-CASE-NPO-11861-1] c 36 N74-20009
- Optically detonated explosive device  
[NASA-CASE-NPO-11743-1] c 28 N74-27425
- Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028
- Dually mode locked Nd:YAG laser  
[NASA-CASE-GSC-11746-1] c 36 N75-19654
- Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp  
[NASA-CASE-LAR-11341-1] c 36 N75-19655
- Acoustically controlled distributed feedback laser  
[NASA-CASE-NPO-13175-1] c 36 N75-31427
- Optical noise suppression device and method --- laser light exposing film  
[NASA-CASE-MSC-12640-1] c 74 N76-31998
- Length controlled stabilized mode-lock Nd:YAG laser  
[NASA-CASE-GSC-11571-1] c 36 N77-25499
- Apparatus for photon excited catalysis  
[NASA-CASE-NPO-13566-1] c 25 N77-32255
- Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510
- High power metallic halide laser --- amplifying a copper chloride laser  
[NASA-CASE-NPO-14782-1] c 36 N82-28616
- Collimated beam manifold with the number of output beams variable at a given output angle  
[NASA-CASE-MFS-25312-1] c 74 N83-17305
- Method of and apparatus for double-exposure holographic interferometry  
[NASA-CASE-MFS-25405-1] c 35 N84-22929
- Method and apparatus for coating substrates using a laser  
[NASA-CASE-LEW-13526-1] c 36 N84-22944
- LASER PLASMAS**  
Continuous plasma laser --- method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma  
[NASA-CASE-XNP-04167-3] c 36 N77-19416
- LASER PUMPING**  
Laser apparatus  
[NASA-CASE-GSC-12237-1] c 36 N80-14384
- Large volume multiple-path nuclear pumped laser  
[NASA-CASE-LAR-12592-1] c 36 N82-13415
- Solar pumped laser  
[NASA-CASE-LAR-12870-1] c 36 N84-16542
- LASER RANGE FINDERS**  
Laser measuring system for incremental assemblies --- measuring wire-wrapped frame assemblies in spark chambers  
[NASA-CASE-GSC-12321-1] c 36 N82-16396
- Optical distance measuring instrument  
[US-PATENT-APPL-SN-406820] c 74 N83-13982
- LASER RANGER/TRACKER**  
Method and apparatus for aligning a laser beam projector Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125
- LASER SPECTROSCOPY**  
Stark effect spectrophone for continuous absorption spectra monitoring --- a technique for gas analysis  
[NASA-CASE-NPO-15102-1] c 25 N81-25159
- LASER WINDOWS**  
Optical scanner --- laser doppler velocimeters  
[NASA-CASE-LAR-11711-1] c 74 N78-17866
- LASERS**  
Laser apparatus for removing material from rotating objects Patent  
[NASA-CASE-MFS-11279] c 16 N71-20400
- Laser grating interferometer Patent  
[NASA-CASE-XLA-04295] c 16 N71-24170
- Optical frequency waveguide Patent  
[NASA-CASE-HQN-10541-1] c 07 N71-26291
- Laser camera and diffusion filter therefore Patent  
[NASA-CASE-NPO-10417] c 16 N71-33410
- Optical probing of supersonic flows with statistical correlation  
[NASA-CASE-MFS-20642] c 14 N72-21407
- A technique for breaking ice in the path of a ship  
[NASA-CASE-LAR-10815-1] c 16 N72-22520
- Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397
- Tunable cavity resonator with ramp shaped supports  
[NASA-CASE-HQN-10790-1] c 36 N74-11313
- Short range laser obstacle detector --- for surface vehicles using laser diode array  
[NASA-CASE-NPO-11856-1] c 36 N74-15145
- Long range laser traversing system  
[NASA-CASE-GSC-11262-1] c 36 N74-21091
- Deep trap, laser activated image converting system  
[NASA-CASE-NPO-13131-1] c 36 N75-19652
- Laser system with an antiresonant optical ring  
[NASA-CASE-HQN-10844-1] c 36 N75-19653
- Acoustically controlled distributed feedback laser  
[NASA-CASE-NPO-13175-1] c 36 N75-31427
- Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback  
[NASA-CASE-NPO-13346-1] c 36 N76-29575
- Polarization compensator for optical communications  
[NASA-CASE-GSC-11782-1] c 74 N76-30053
- Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942
- Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346
- Method and apparatus for splitting a beam of energy --- optical communication  
[NASA-CASE-GSC-12083-1] c 73 N78-32848
- Shock isolator for operating a diode laser on a closed-cycle refrigerator  
[NASA-CASE-GSC-12297-1] c 37 N79-28549
- Method of and apparatus for double-exposure holographic interferometry  
[NASA-CASE-MFS-25405-1] c 35 N84-22929
- Method and apparatus for coating substrates using a laser  
[NASA-CASE-LEW-13526-1] c 36 N84-22944
- Off-axis coherently pumped laser  
[NASA-CASE-GSC-12592-1] c 36 N84-28065
- LATCHES**  
Despin weight release Patent  
[NASA-CASE-XLA-00679] c 15 N70-38601
- Helmet assembly and latch means therefor Patent  
[NASA-CASE-XMS-04935] c 05 N71-11190
- Quick disconnect latch and handle combination Patent  
[NASA-CASE-MFS-11132] c 15 N71-17649
- Latching mechanism Patent  
[NASA-CASE-XMS-03745] c 15 N71-21076
- Latch/ejector unit Patent  
[NASA-CASE-XLA-03538] c 15 N71-24897
- Latching mechanism Patent  
[NASA-CASE-MSC-15474-1] c 15 N71-26162
- Latch mechanism  
[NASA-CASE-MSC-12549-1] c 37 N74-27903
- Latching device  
[NASA-CASE-MFS-21606-1] c 37 N75-19685
- Load regulating latch  
[NASA-CASE-MSC-19535-1] c 37 N77-32499
- Helmet latching and attaching ring  
[NASA-CASE-XMS-04670] c 54 N78-17678
- Low temperature latching solenoid  
[NASA-CASE-MSC-18106-1] c 33 N82-11357
- Hemispherical latching apparatus for payload retention  
[NASA-CASE-MFS-25837] c 16 N82-31398
- Slide release mechanism --- for the external tank  
[NASA-CASE-MSC-20080-1] c 37 N82-31688
- Connection system  
[NASA-CASE-MSC-20319-1] c 37 N82-31689
- CAM controlled retractable door latch  
[NASA-CASE-MSC-20304-1] c 37 N82-31690
- Mechanical end joint system for structural column elements  
[NASA-CASE-LAR-12482-1] c 37 N82-32732
- Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860
- Latching mechanism for deployable-restowable columns  
[NASA-CASE-LAR-13169-1] c 37 N84-25063
- LATERAL CONTROL**  
Three-axis controller Patent  
[NASA-CASE-XAC-01404] c 05 N70-41581
- Roll attitude star sensor system Patent  
[NASA-CASE-XNP-01307] c 21 N70-41856
- High speed flight vehicle control Patent  
[NASA-CASE-XLA-08967] c 02 N71-27088
- Vortex-lift roll-control device  
[NASA-CASE-LAR-11868-2] c 08 N79-14108
- LATERAL STABILITY**  
Annular wing  
[NASA-CASE-FRC-11007-2] c 05 N82-26277
- LATEX**  
Molten salt pyrolysis of latex --- synthetic hydrocarbon fuel production using the Guayule shrub  
[NASA-CASE-NPO-14315-1] c 27 N81-17261
- Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242
- LATHES**  
Apparatus for machining geometric cones Patent  
[NASA-CASE-XMS-04292] c 15 N71-22722
- Lathe tool bit and holder for machining fiberglass materials  
[NASA-CASE-XLA-10470] c 15 N72-21489
- LAUNCH ESCAPE SYSTEMS**  
Emergency escape system Patent  
[NASA-CASE-XKS-02342] c 05 N71-11199
- Device for separating occupant from an ejection seat Patent  
[NASA-CASE-XMS-04625] c 05 N71-20718
- LAUNCH VEHICLE CONFIGURATIONS**  
Rotating launch device for a remotely piloted aircraft  
[NASA-CASE-ARC-10979-1] c 09 N77-19076
- LAUNCH VEHICLES**  
A support technique for vertically oriented launch vehicles  
[NASA-CASE-XLA-02704] c 11 N69-21540
- Method and apparatus for detection and location of microleaks Patent  
[NASA-CASE-XMF-02307] c 14 N71-10779
- Three stage rocket vehicle with parallel staging  
[NASA-CASE-MFS-25878-1] c 18 N84-27787
- LAUNCHERS**  
Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609
- LAUNCHING PADS**  
Missile launch release system Patent  
[NASA-CASE-XMF-03198] c 30 N70-40353
- Remote controlled tubular disconnect Patent  
[NASA-CASE-XLA-01396] c 03 N71-12259
- Validation device for spacecraft checkout equipment Patent  
[NASA-CASE-XKS-10543] c 07 N71-26292
- LAY-UP**  
Method of making a partial interlaminar separation composite system  
[NASA-CASE-LAR-12065-2] c 24 N81-33235
- LAYERS**  
Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-1] c 28 N78-24365
- LEACHING**  
Process for the leaching of AP from propellant  
[NASA-CASE-NPO-14109-1] c 28 N80-23471
- LEAD (METAL)**  
Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N76-27664
- Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-2] c 44 N81-29524
- Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338
- LEAD SULFIDES**  
Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360
- LEAD TELLURIDES**  
Bonding thermoelectric elements to nonmagnetic refractory metal electrodes  
[NASA-CASE-XGS-04554] c 15 N69-39786
- Segmenting lead telluride-silicon germanium thermoelements Patent  
[NASA-CASE-XGS-05718] c 26 N71-16037
- LEADING EDGE FLAPS**  
Leading edge vortex flaps for drag reduction --- during subsonic flight  
[NASA-CASE-LAR-12750-1] c 02 N81-19016
- LEADING EDGES**  
Reentry vehicle leading edge Patent  
[NASA-CASE-XLA-00165] c 31 N70-33242
- Leading edge curvature based on convective heating Patent  
[NASA-CASE-XLA-01486] c 01 N71-23497
- Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-19170
- LEAKS**  
Pumped vortex  
[NASA-CASE-LAR-12625-1] c 02 N83-19715
- Rotor blade with passive tuned tab  
[NASA-CASE-ARC-11444-1] c 02 N83-25663
- Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092
- LEAKAGE**  
Rocket chamber leak test fixture  
[NASA-CASE-XFR-09479] c 14 N69-27503
- Method and apparatus for detection and location of microleaks Patent  
[NASA-CASE-XMF-02307] c 14 N71-10779
- Leak detector Patent  
[NASA-CASE-LAR-10323-1] c 12 N71-17573
- Hard space suit Patent  
[NASA-CASE-XAC-07043] c 05 N71-23161
- Method for leakage testing of tanks Patent  
[NASA-CASE-XMF-02392] c 32 N71-24285

Leak detector wherein a probe is monitored with ultraviolet radiation Patent  
[NASA-CASE-ERC-10034] c 15 N71-24896

Method for detecting leaks in hermetically sealed containers Patent  
[NASA-CASE-ERC-10045] c 15 N71-24910

Method and apparatus for detecting gross leaks Patent  
[NASA-CASE-ERC-10033] c 14 N71-26672

Orifice gross leak tester Patent  
[NASA-CASE-ERC-10150] c 14 N71-28992

Leak detector  
[NASA-CASE-MFS-21761-1] c 35 N75-15931

Vacuum leak detector  
[NASA-CASE-LAR-11237-1] c 35 N75-19612

Low heat leak connector for cryogenic system  
[NASA-CASE-XLE-02387-1] c 31 N79-21225

Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-16027-1] c 33 N83-29595

Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137

**LEG (ANATOMY)**

Actuator device for artificial leg  
[NASA-CASE-MFS-23225-1] c 52 N77-14735

Rotational joint assembly for the prosthetic leg  
[NASA-CASE-KSC-11004-1] c 54 N77-30749

Mechanical energy storage device for hip disarticulation  
[NASA-CASE-ARC-10916-1] c 52 N78-10686

**LENS DESIGN**

Chromatically corrected virtual image display — lens design for flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N79-14892

**LENSES**

High temperature lens construction Patent  
[NASA-CASE-XNP-04111] c 14 N71-15622

Image magnification adapter for cameras Patent  
[NASA-CASE-XMF-03844-1] c 14 N71-26474

Petzval type objective including field shaping lens Patent  
[NASA-CASE-GSC-10700] c 23 N71-30027

Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence  
[NASA-CASE-GSC-11133-1] c 23 N72-11568

Plural beam antenna  
[NASA-CASE-GSC-11013-1] c 09 N73-19234

Spatial filter for Q-switched lasers  
[NASA-CASE-LEW-12164-1] c 36 N77-32478

Process for producing a well-adhered durable optical coating on an optical plastic substrate — abrasion resistant polymethyl methacrylate lenses  
[NASA-CASE-ARC-11039-1] c 74 N78-32854

Chromatically corrected virtual image visual display — reducing eye strain in flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N80-27185

Constant magnification optical tracking system  
[NASA-CASE-NPO-14813-1] c 74 N82-24072

Scanning afocal laser velocimeter projection lens system  
[NASA-CASE-LAR-12328-1] c 36 N82-32712

Interferometric angle monitor  
[NASA-CASE-GSC-12614-1] c 74 N83-32577

**LENTICULAR BODIES**

Space and atmospheric reentry vehicle Patent  
[NASA-CASE-XGS-00260] c 31 N70-37924

**LEVEL (HORIZONTAL)**

Hot wire liquid level detector for cryogenic fluids Patent  
[NASA-CASE-XLE-00454] c 23 N71-17802

Rotary leveling base platform  
[NASA-CASE-ARC-10981-1] c 37 N78-27425

**LEVEL (QUANTITY)**

Spherical tank gauge Patent  
[NASA-CASE-XMS-08236] c 14 N71-21007

Positive dc to positive dc converter Patent  
[NASA-CASE-XMF-14301] c 09 N71-23188

**LEVELING**

Adjustable attitude guide device Patent  
[NASA-CASE-XLA-07811] c 15 N71-15571

Electrical switching device Patent  
[NASA-CASE-NPO-10037] c 09 N71-19610

Adjustable support  
[NASA-CASE-NPO-10721] c 15 N72-27484

Automatically operable self-leveling load table  
[NASA-CASE-MFS-22039-1] c 09 N75-12968

**LEVITATION**

Closed loop electrostatic system  
[NASA-CASE-NPO-15553-1] c 33 N83-12335

Gas levitator having fixed levitation node for containerless processing  
[NASA-CASE-MFS-25509-1] c 35 N83-24828

**LIFE (DURABILITY)**

Hollow rolling element bearings  
[NASA-CASE-LEW-11087-3] c 37 N74-21064

Method of increasing minority carrier lifetime in silicon web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888

Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425

Apparatus for disintegrating kidney stones  
[NASA-CASE-GSC-12652-1] c 52 N84-34913

**LIFE DETECTORS**

Use of the enzyme hexokinase for the reduction of inherent light levels  
[NASA-CASE-XGS-05533] c 04 N69-27487

Lyophilized reaction mixtures Patent  
[NASA-CASE-XGS-05532] c 06 N71-17705

**LIFE RAFTS**

Life raft Patent  
[NASA-CASE-XMS-00863] c 05 N70-34857

Life raft stabilizer  
[NASA-CASE-MSL-12393-1] c 02 N73-26006

Modification of one man life raft  
[NASA-CASE-LAR-10241-1] c 54 N74-14845

**LIFE SUPPORT SYSTEMS**

Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152

Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203

Extravehicular tunnel suit system Patent  
[NASA-CASE-MSL-12243-1] c 05 N71-24728

Foreshortened convolute section for a pressurized suit Patent  
[NASA-CASE-XMS-09637-1] c 05 N71-24730

Orbital escape device Patent  
[NASA-CASE-XMS-06162] c 31 N71-28851

Specialized halogen generator for purification of water Patent  
[NASA-CASE-XLA-08913] c 14 N71-28933

Life support system  
[NASA-CASE-MSL-12411-1] c 05 N72-20096

Air removal device  
[NASA-CASE-XLA-8914] c 15 N73-12492

Space suit  
[NASA-CASE-MSL-12609-1] c 05 N73-32012

Catalyst cartridge for carbon dioxide reduction unit  
[NASA-CASE-LAR-10551-1] c 25 N74-12813

Helmet feedport  
[NASA-CASE-XMS-09653] c 54 N78-17680

Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721

Air removal device — life support systems  
[NASA-CASE-XLA-8914-2] c 25 N82-21269

**LIFT**

Pumped vortex  
[NASA-CASE-LAR-12625-1] c 02 N83-19715

**LIFT DEVICES**

Device for handling heavy loads  
[NASA-CASE-XNP-04969] c 11 N69-27466

Recoverable rocket vehicle Patent  
[NASA-CASE-XMF-00389] c 31 N70-34176

Direct lift control system Patent  
[NASA-CASE-LAR-10249-1] c 02 N71-26110

Ferry system  
[NASA-CASE-LAR-10574-1] c 11 N73-13257

High lift aircraft — with improved stability, control, performance, and noise characteristics  
[NASA-CASE-LAR-11252-1] c 05 N75-25914

Device for installing rocket engines  
[NASA-CASE-MFS-19220-1] c 20 N76-22296

Vortex-lift roll-control device  
[NASA-CASE-LAR-11868-2] c 08 N79-14108

**LIFT DRAG RATIO**

Ring wing tension vehicle Patent  
[NASA-CASE-XLA-04901] c 31 N71-24315

Annular wing  
[NASA-CASE-FRC-11007-2] c 05 N82-26277

Slotted variable camber flap  
[NASA-CASE-LAR-12541-1] c 05 N84-22551

**LIFTING BODIES**

Recoverable rocket vehicle Patent  
[NASA-CASE-XMF-00389] c 31 N70-34176

Lifting body Patent Application  
[NASA-CASE-FRC-10063] c 01 N71-12217

Lift balancing device  
[NASA-CASE-LAR-10348-1] c 11 N73-12264

**LIFTING REENTRY VEHICLES**

Space and atmospheric reentry vehicle Patent  
[NASA-CASE-XGS-00260] c 31 N70-37924

Variable geometry manned orbital vehicle Patent  
[NASA-CASE-XLA-03691] c 31 N71-15674

Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087

**LIGANDS**

Carboranyl/methylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750

**LIGHT (VISIBLE RADIATION)**

Anti-glare improvement for optical imaging systems Patent  
[NASA-CASE-NPO-10337] c 14 N71-15604

Maksutov spectrograph Patent  
[NASA-CASE-XLA-10402] c 14 N71-29041

Combustion detector  
[NASA-CASE-LAR-10739-1] c 14 N73-16484

Optical fiber tactile sensor  
[NASA-CASE-NPO-15375-1] c 74 N84-11921

**LIGHT AIRCRAFT**

Direct lift control system Patent  
[NASA-CASE-LAR-10249-1] c 02 N71-26110

**LIGHT BEAMS**

Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent  
[NASA-CASE-XGS-08269] c 23 N71-26206

Optical communications system Patent  
[NASA-CASE-XLA-01090] c 16 N71-28963

Multiple hologram recording and readout system Patent  
[NASA-CASE-ERC-10151] c 16 N71-29131

Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978

Collimated beam manifold with the number of output beams variable at a given output angle  
[NASA-CASE-MFS-25312-1] c 74 N83-17305

**LIGHT EMITTING DIODES**

Photoelectric detection system — manufacturing automation  
[NASA-CASE-MFS-23776-1] c 33 N82-28545

Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733

**LIGHT GAS GUNS**

Hypervelocity gun Patent  
[NASA-CASE-XAC-05902] c 11 N71-18578

**LIGHT MODULATION**

Retrodirective modulator Patent  
[NASA-CASE-GSC-10062] c 14 N71-15605

Light intensity modulator controller Patent  
[NASA-CASE-XMS-04300] c 09 N71-19479

Method and apparatus for optical modulating a light signal Patent  
[NASA-CASE-GSC-10216-1] c 23 N71-26722

Optical communications system Patent  
[NASA-CASE-XLA-01090] c 16 N71-28963

Lamp modulator  
[NASA-CASE-KSC-10565] c 09 N72-25250

Polarization compensator for optical communications  
[NASA-CASE-GSC-11782-1] c 74 N76-30053

Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510

Fluorescent radiation converter  
[NASA-CASE-GSC-12528-1] c 74 N81-24900

**LIGHT SCATTERING**

The 2 deg/90 deg laboratory scattering photometer — particulate refractivity in hydrosols  
[NASA-CASE-GSC-12088-1] c 74 N78-13874

Optical system with reflective baffles  
[NASA-CASE-ARC-11502-1] c 74 N84-26400

**LIGHT SCATTERING METERS**

System for the measurement of ultra-low stray light levels — determining the adequacy of large space telescope systems  
[NASA-CASE-MFS-23513-1] c 74 N79-11865

**LIGHT SOURCES**

Light radiation direction indicator with a baffle of two parallel grids  
[NASA-CASE-XNP-03930] c 14 N69-24331

High intensity heat and light unit Patent  
[NASA-CASE-XLA-00141] c 09 N70-33312

Photosensitive device to detect bearing deviation Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089

Light position locating system Patent  
[NASA-CASE-XNP-01059] c 23 N71-21821

Optical systems having spatially invariant outputs  
[NASA-CASE-ERC-10248] c 14 N72-17323

Ultrastable calibrated light source  
[NASA-CASE-MSL-12293-1] c 14 N72-27411

Temperature compensated light source using a light emitting diode  
[NASA-CASE-ARC-10467-1] c 09 N73-14214

Interferometric rotation sensor  
[NASA-CASE-ARC-10278-1] c 14 N73-25483

Attitude sensor  
[NASA-CASE-LAR-10586-1] c 19 N74-15089

Very high intensity light source using a cathode ray tube — electron beams  
[NASA-CASE-XNP-01296] c 33 N75-27250

Electric arc light source having undercut recessed anode  
[NASA-CASE-ARC-10266-1] c 33 N75-29318

- Uniform variable light source  
[NASA-CASE-NPO-11429-1] c 74 N77-21941
- LIGHT TRANSMISSION**  
Hybrid holographic system using reflected and transmitted object beams simultaneously Patent  
[NASA-CASE-MFS-20074] c 16 N71-15565  
Optical characteristics measuring apparatus Patent  
[NASA-CASE-XNP-08840] c 23 N71-16365  
Optical monitor panel Patent  
[NASA-CASE-XKS-03509] c 14 N71-23175  
Solar cell panels with light transmitting plate  
[NASA-CASE-NPO-10747] c 03 N72-22042  
Optical frequency waveguide and transmission system  
[NASA-CASE-HQN-10541-3] c 23 N72-23695  
Light regulator  
[NASA-CASE-LAR-10836-1] c 26 N72-27784  
Transmitting and reflecting diffuser --- for ultraviolet light  
[NASA-CASE-LAR-10385-2] c 70 N74-13436  
Optical instrument employing reticle having preselected visual response pattern formed thereon  
[NASA-CASE-ARC-10976-1] c 74 N77-22950  
Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings  
[NASA-CASE-LAR-10385-3] c 74 N78-15879  
Constant magnification optical tracking system  
[NASA-CASE-NPO-14813-1] c 74 N82-24072  
Light transmitting window assembly  
[NASA-CASE-MSC-18417-1] c 74 N84-23251
- LIGHT VALVES**  
Wide dynamic range video camera  
[NASA-CASE-MFS-25750-1] c 33 N83-35229
- LIGHTING EQUIPMENT**  
Internal work light Patent  
[NASA-CASE-XKS-05932] c 09 N71-26787  
Pressurized lighting system  
[NASA-CASE-KSC-10644] c 09 N72-27227  
Remote lightning monitor system  
[NASA-CASE-KSC-11031-1] c 33 N79-11315
- LIGHTNING**  
Determining distance to lightning strokes from a single station  
[NASA-CASE-KSC-10698] c 07 N73-20175  
Lightning tracking system  
[NASA-CASE-KSC-10729-1] c 09 N73-32110  
Automatic lightning detection and photographic system  
[NASA-CASE-KSC-10728-1] c 14 N73-32319  
Lightning current measuring systems  
[NASA-CASE-KSC-10807-1] c 33 N75-26246  
Lightning current waveform measuring system  
[NASA-CASE-KSC-11018-1] c 33 N79-10337  
Lightning current detector  
[NASA-CASE-KSC-11057-1] c 33 N79-14305  
Lightning discharge identification system  
[NASA-CASE-KSC-11099-1] c 47 N82-24779
- LIMBS (ANATOMY)**  
Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772  
Apparatus for determining changes in limb volume  
[NASA-CASE-MSC-18759-1] c 52 N83-27578
- LIMITER CIRCUITS**  
Variable duration pulse integrator Patent  
[NASA-CASE-XLA-01219] c 10 N71-23084  
Noise limiter Patent  
[NASA-CASE-NPO-10169] c 10 N71-24844  
Velocity limiting safety system Patent  
[NASA-CASE-XLA-07473] c 15 N71-24895  
Low level signal limiter  
[NASA-CASE-XLE-04791] c 32 N74-22096  
Inrush current limiter  
[NASA-CASE-GSC-11789-1] c 33 N77-14333
- LINE OF SIGHT**  
Retinally stabilized differential resolution television display  
[US-PATENT-APPL-SN-425204] c 32 N83-12308
- LINE SPECTRA**  
Stark cell optoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015  
Optical scanner  
[NASA-CASE-GSC-12897-1] c 74 N84-25450
- LINEAR ACCELERATORS**  
Linear accelerator frequency control system Patent  
[NASA-CASE-XGS-05441] c 10 N71-22962
- LINEAR ARRAYS**  
Multispectral imaging and analysis system --- using charge coupled devices and linear arrays  
[NASA-CASE-NPO-13691-1] c 43 N79-17288
- LINEAR INTEGRATED CIRCUITS**  
Integrating IR detector imaging systems  
[NASA-CASE-NPO-15805-1] c 74 N84-28590
- LINEAR POLARIZATION**  
Wide dynamic range video camera  
[NASA-CASE-MFS-25750-1] c 33 N83-35229
- LINEAR RECEIVERS**  
Antenna array at focal plane of reflector with coupling network for beam switching Patent  
[NASA-CASE-GSC-10220-1] c 07 N71-27233
- LINEAR SYSTEMS**  
Linear three-tap feedback shift register Patent  
[NASA-CASE-NPO-10351] c 08 N71-12503  
A m-ary linear feedback shift register with binary logic  
[NASA-CASE-NPO-11868] c 10 N73-20254  
Reciprocating linear motor  
[NASA-CASE-GSC-12773-1] c 33 N83-12332  
Linear magnetic bearings  
[NASA-CASE-GSC-12582-2] c 37 N83-13460
- LINEARITY**  
Semi-linear ball bearing Patent  
[NASA-CASE-XLA-02809] c 15 N71-22982  
Mechanical actuator Patent  
[NASA-CASE-XGS-04548] c 15 N71-24045  
Linear magnetic bearing  
[NASA-CASE-GSC-12517-1] c 37 N83-32067  
Linear motion valve  
[NASA-CASE-MSC-20148-1] c 37 N84-32823
- LININGS**  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453  
Steam cooled rich-burn combustor liner  
[NASA-CASE-LEW-13609-1] c 25 N83-17628  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450  
Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577
- LINKAGES**  
Collapsible nozzle extension for rocket engines Patent  
[NASA-CASE-MFS-11497] c 28 N71-16224  
Adjustable force probe  
[NASA-CASE-MFS-20760] c 14 N72-33377  
Locking redundant link  
[NASA-CASE-LAR-11900-1] c 37 N79-14382  
Compensating linkage for main rotor control  
[NASA-CASE-LAR-11797-1] c 05 N81-19087
- LIQUEFACTION**  
Ophthalmic liquefaction pump  
[NASA-CASE-LEW-12051-1] c 52 N75-33640
- LIQUID ATOMIZATION**  
Constant-output atomizer --- Inhalation therapy and aerosol research  
[NASA-CASE-MFS-25631-1] c 34 N84-12406
- LIQUID BEARINGS**  
High speed hybrid bearing comprising a fluid bearing and a rolling bearing connected in series  
[NASA-CASE-LEW-11152-1] c 15 N73-32359
- LIQUID CHROMATOGRAPHY**  
A spillage detector for liquid chromatography systems  
[NASA-CASE-MSC-20206-1] c 25 N83-29325
- LIQUID COOLING**  
Water cooled contactor for anode in carbon arc mechanism  
[NASA-CASE-XMS-03700] c 15 N69-24266  
External liquid-spray cooling of turbine blades Patent  
[NASA-CASE-XLE-00037] c 28 N70-33372  
Solenoid construction Patent  
[NASA-CASE-XNP-01951] c 09 N70-41929  
Laminar flow enhancement Patent  
[NASA-CASE-NPO-10122] c 12 N71-17631  
Space suit heat exchanger Patent  
[NASA-CASE-XMS-09571] c 05 N71-19439  
Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114-2] c 09 N71-24807  
Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114] c 33 N71-27862  
Liquid spray cooling method Patent  
[NASA-CASE-XLE-00027] c 33 N71-29152  
Automatic control of liquid cooling garment by cutaneous and external auditory meatus temperatures  
[NASA-CASE-MSC-13917-1] c 05 N72-15098  
Temperature controller for a fluid cooled garment  
[NASA-CASE-ARC-10599-1] c 05 N73-26071  
Heat exchanger system and method  
[NASA-CASE-LAR-10799-2] c 34 N76-17317  
Liquid cooled brassiere and method of diagnosing malignant tumors therewith  
[NASA-CASE-ARC-11007-1] c 52 N77-14736  
Closed loop spray cooling apparatus --- for particle accelerator targets  
[NASA-CASE-LEW-11981-1] c 31 N78-17237
- LIQUID CRYSTALS**  
Angular velocity and acceleration measuring apparatus  
[NASA-CASE-ERC-10292] c 14 N72-25410  
Electricity measurement devices employing liquid crystalline materials  
[NASA-CASE-ERC-10275] c 26 N72-25680
- Liquid crystal light valve structures  
[NASA-CASE-MSC-20036-1] c 76 N84-22457
- LIQUID FILLED SHELLS**  
Liquid rocket system Patent  
[NASA-CASE-XNP-00610] c 28 N70-36910  
Fluid sample collector Patent  
[NASA-CASE-XMS-06767-1] c 14 N71-20435  
Fluid containers and resealable septum therefor Patent  
[NASA-CASE-NPO-10123] c 15 N71-24835  
Omnidirectional acceleration device Patent  
[NASA-CASE-HQN-10780] c 14 N71-30265
- LIQUID FLOW**  
Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988  
Liquid junction and method of fabricating the same Patent Application  
[NASA-CASE-NPO-10682] c 15 N70-34693  
Valve actuator Patent  
[NASA-CASE-XHQ-01208] c 15 N70-35409  
Fluid coupling Patent  
[NASA-CASE-XLE-00397] c 15 N70-36492  
Positive displacement flowmeter Patent  
[NASA-CASE-XMF-02822] c 14 N70-41994  
Liquid flow sight assembly Patent  
[NASA-CASE-XLE-02998] c 14 N70-42074  
Ablative system  
[NASA-CASE-LEW-10359-2] c 33 N73-25952  
Zero gravity liquid transfer screen  
[NASA-CASE-KSC-10626] c 14 N73-27378  
System for measuring Reynolds in a turbulently flowing fluid --- signal processing  
[NASA-CASE-ARC-10755-2] c 34 N76-27517  
Degassifying and mixing apparatus for liquids --- potable water for spacecraft  
[NASA-CASE-MSC-18936-1] c 35 N83-29652  
Multicolor printing plate joining  
[NASA-CASE-LEW-13598-1] c 35 N84-22930
- LIQUID HELIUM**  
Heat operated cryogenic electrical generator  
[NASA-CASE-NPO-13303-1] c 20 N75-24837  
Helium refrigerator  
[NASA-CASE-NPO-13435-1] c 31 N76-14284  
Cryostat system for temperatures on the order of 2 deg. K or less  
[NASA-CASE-NPO-13459-1] c 31 N77-10229  
Multistation refrigeration system  
[NASA-CASE-NPO-13839-1] c 31 N78-25256  
Stabilization of He2(a 3 Sigma u+) molecules in liquid helium by optical pumping for vacuum UV laser 6  
[NASA-CASE-NPO-13993-1] c 72 N79-13826  
Low cost cryostat  
[NASA-CASE-NPO-14513-1] c 35 N81-14287  
Propulsion apparatus and method using boil-off gas from a cryogenic liquid --- controlling spacecraft attitude and drag  
[NASA-CASE-MFS-25946-1] c 20 N84-15183
- LIQUID HYDROGEN**  
Cryogenic thermal insulation Patent  
[NASA-CASE-XMF-05046] c 33 N71-28892  
Reinforced polyquinoxaline gasket and method of preparing the same --- resistant to ionizing radiation and liquid hydrogen temperatures  
[NASA-CASE-MFS-21364-1] c 37 N74-18126  
Liquid hydrogen polygeneration system and process  
[NASA-CASE-KSC-11304-1] c 28 N84-29017
- LIQUID INJECTION**  
Thrust vector control apparatus Patent  
[NASA-CASE-XLE-00208] c 28 N70-34294  
Control system for rocket vehicles Patent  
[NASA-CASE-XLA-01163] c 21 N71-15582  
Injector assembly for liquid fueled rocket engines Patent  
[NASA-CASE-XMF-00968] c 28 N71-15660  
Sodium storage and injection system  
[NASA-CASE-NPO-14384-1] c 37 N80-10494  
Method of producing silicon --- gas phase reactor multiple injector liquid feed system  
[NASA-CASE-NPO-14382-1] c 31 N80-18231
- LIQUID LASERS**  
Method and apparatus for wavelength tuning of liquid lasers  
[NASA-CASE-ERC-10187] c 16 N69-31343
- LIQUID LEVELS**  
Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01609] c 14 N71-10500  
Apparatus for fiber optic liquid level sensing  
[NASA-CASE-MSC-18674-1] c 74 N81-24907
- LIQUID METALS**  
Slug flow magnetohydrodynamic generator  
[NASA-CASE-XLE-02083] c 03 N69-39983  
Two-fluid magnetohydrodynamic system and method for thermal-electric power conversion Patent  
[NASA-CASE-XNP-00644] c 03 N70-36803

Analytical test apparatus and method for determining oxide content of alkali metal Patent  
[NASA-CASE-XLE-01997] c 06 N71-23527

Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114] c 33 N71-27862

Fluid impervious barrier including liquid metal alloy and method of making same Patent  
[NASA-CASE-XNP-08881] c 17 N71-28747

Shell side liquid metal boiler  
[NASA-CASE-NPO-10831] c 33 N72-20915

Method for distillation of liquids  
[NASA-CASE-XNP-08124-2] c 06 N73-13129

Electromagnetic flow rate meter --- for liquid metals  
[NASA-CASE-LEW-10981-1] c 35 N74-21018

Process for preparing liquid metal electrical contact device  
[NASA-CASE-LEW-11978-1] c 33 N77-26385

Solar driven liquid metal MHD power generator  
[NASA-CASE-LAR-12495-1] c 44 N83-28573

**LIQUID NITROGEN**  
Cryogenic feedthrough  
[NASA-CASE-LAR-10031] c 15 N72-22484

**LIQUID OXYGEN**  
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170

**LIQUID PHASES**  
Fluid dispensing apparatus and method Patent  
[NASA-CASE-XLE-01182] c 27 N71-15635

Hydraulic casting of liquid polymers Patent  
[NASA-CASE-XNP-07659] c 06 N71-22975

Fluid phase analyzer Patent  
[NASA-CASE-NPO-10691] c 14 N71-26199

Cryogenic liquid sensor  
[NASA-CASE-NPO-10619-1] c 35 N77-21393

**LIQUID PROPELLANT ROCKET ENGINES**  
Annular rocket motor and nozzle configuration Patent  
[NASA-CASE-XLE-00078] c 28 N70-33284

Attitude and propellant flow control system and method Patent  
[NASA-CASE-XMF-00185] c 21 N70-34539

Injector for bipropellant rocket engines Patent  
[NASA-CASE-XMF-00148] c 28 N70-38710

Zero gravity starting means for liquid propellant motors Patent  
[NASA-CASE-XNP-01390] c 28 N70-41275

Supersonic-combustion rocket  
[NASA-CASE-LEW-11058-1] c 20 N74-13502

Space vehicle  
[NASA-CASE-MFS-22734-1] c 18 N75-19329

Fluid thrust control system --- for liquid propellant rocket engines  
[NASA-CASE-XMF-05964-1] c 20 N79-21124

Rocket injector head  
[NASA-CASE-XMF-04592-1] c 20 N79-21125

Low thrust monopropellant engine  
[NASA-CASE-GSC-12194-2] c 20 N82-18314

**LIQUID ROCKET PROPELLANTS**  
Rocket propellant injector Patent  
[NASA-CASE-XLE-00103] c 28 N70-33241

Liquid rocket system Patent  
[NASA-CASE-XNP-00610] c 28 N70-36910

Rocket motor system Patent  
[NASA-CASE-XLE-00323] c 28 N70-38505

High temperature spark plug Patent  
[NASA-CASE-XLE-00660] c 28 N70-39925

High pressure filter Patent  
[NASA-CASE-XNP-00732] c 28 N70-41447

Liquid storage tank venting device for zero gravity environment Patent  
[NASA-CASE-XLE-01449] c 15 N70-41646

Tank construction for space vehicles Patent  
[NASA-CASE-XMF-01899] c 31 N70-41948

Fluid dispensing apparatus and method Patent  
[NASA-CASE-XLE-01182] c 27 N71-15635

Control valve and co-axial variable injector Patent  
[NASA-CASE-XNP-09702] c 15 N71-17654

Slosh alleviator Patent  
[NASA-CASE-XLA-05749] c 15 N71-19569

Filler valve Patent  
[NASA-CASE-XNP-01747] c 15 N71-23024

Propellant mass distribution metering apparatus Patent  
[NASA-CASE-NPO-10185] c 10 N71-26339

Fluid impervious barrier including liquid metal alloy and method of making same Patent  
[NASA-CASE-XNP-08881] c 17 N71-28747

Response analyzers for sensors Patent  
[NASA-CASE-MFS-11204] c 14 N71-29134

Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278

Supercharged topping rocket propellant feed system  
[NASA-CASE-XLE-02062-1] c 20 N80-14188

Liquid hydrogen polygeneration system and process  
[NASA-CASE-KSC-11304-1] c 28 N84-29017

**LIQUID SLOSHING**

Slosh suppressing device and method Patent  
[NASA-CASE-XMF-00658] c 12 N70-38997

Flexible ring slosh damping baffle Patent  
[NASA-CASE-LAR-10317-1] c 32 N71-16103

Buoyant anti-slosh system Patent  
[NASA-CASE-XLA-04605] c 32 N71-16106

Hot wire liquid level detector for cryogenic fluids Patent  
[NASA-CASE-XLE-00454] c 23 N71-17802

Slosh alleviator Patent  
[NASA-CASE-XLA-05749] c 15 N71-19569

Instrument for measuring the dynamic behavior of liquids Patent  
[NASA-CASE-XLA-05541] c 12 N71-26387

**LIQUID SODIUM**

Sodium storage and injection system  
[NASA-CASE-NPO-14384-1] c 37 N80-10494

**LIQUID-GAS MIXTURES**

Liquid-gas separation system Patent  
[NASA-CASE-XMS-01624] c 15 N70-40062

Liquid-gas separator for zero gravity environment Patent  
[NASA-CASE-XMS-01492] c 05 N70-41297

Liquid storage tank venting device for zero gravity environment Patent  
[NASA-CASE-XLE-01449] c 15 N70-41646

Separator Patent  
[NASA-CASE-XLA-00415] c 15 N71-16079

Vapor liquid separator Patent  
[NASA-CASE-XMF-04042] c 15 N71-23023

Air removal device --- life support systems  
[NASA-CASE-XLA-8914-2] c 25 N82-21269

**LIQUID-SOLID INTERFACES**

Dual clearance squeeze film damper  
[NASA-CASE-LEW-13506-1] c 07 N84-22562

**LIQUID-VAPOR INTERFACES**

Zero gravity separator Patent  
[NASA-CASE-XLE-00586] c 15 N71-15968

Rotating shaft seal Patent  
[NASA-CASE-XNP-02862-1] c 15 N71-26294

Response analyzers for sensors Patent  
[NASA-CASE-MFS-11204] c 14 N71-29134

Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781

Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692

**LIQUIDS**

Liquid-gas separation system Patent  
[NASA-CASE-XMS-01624] c 15 N70-40062

Electrical switching device Patent  
[NASA-CASE-NPO-10037] c 09 N71-19610

Method and apparatus for distillation of liquids Patent  
[NASA-CASE-XNP-08124] c 15 N71-27184

Apparatus for detecting the amount of material in a resonant cavity container Patent  
[NASA-CASE-XNP-02500] c 18 N71-27397

Resonant infrasonic gauging apparatus  
[NASA-CASE-MSC-11847-1] c 14 N72-11363

Ablative system  
[NASA-CASE-LEW-10359] c 33 N72-25911

Liquid waste feed system  
[NASA-CASE-LAR-10365-1] c 05 N72-27102

Zero gravity liquid mixer  
[NASA-CASE-LAR-10195-1] c 15 N73-19458

Bimetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids  
[NASA-CASE-ARC-10441-1] c 35 N74-15126

Method and device for detection of surface discontinuities or defects  
[NASA-CASE-MSC-14187-1] c 35 N74-32879

Automatic liquid inventory collecting and dispensing unit  
[NASA-CASE-LAR-11071-1] c 35 N75-19611

Thermal energy storage system --- operating on superheating of liquids  
[NASA-CASE-MFS-23167-1] c 44 N76-31667

Low gravity phase separator  
[NASA-CASE-MSC-14773-1] c 35 N78-12390

Automatic fluid dispenser  
[NASA-CASE-ARC-10820-1] c 35 N78-19466

Liquid-immersible electrostatic ultrasonic transducer  
[NASA-CASE-LAR-12465-1] c 33 N82-26572

System for monitoring physical characteristics of fluids  
[NASA-CASE-NPO-15400-1] c 34 N83-31993

**LITHIUM COMPOUNDS**

Novel polymers and method of preparing same  
[NASA-CASE-NPO-10998-1] c 06 N73-32029

**LOAD DISTRIBUTION (FORCES)**

Force measuring instrument Patent  
[NASA-CASE-XMF-00456] c 14 N70-34705

Multiple Belleville spring assembly Patent  
[NASA-CASE-XNP-00840] c 15 N70-38225

Device for use in loading tension members --- characterized by elongated elastic body  
[NASA-CASE-MFS-21488-1] c 14 N75-24794

Pneumatic load compensating or controlling system  
[NASA-CASE-ARC-10907-1] c 37 N75-32465

**LOAD TESTING MACHINES**

Load cell protection device Patent  
[NASA-CASE-XMS-06782] c 32 N71-15974

Load relieving device Patent  
[NASA-CASE-XMS-06329-1] c 15 N71-20441

Method and apparatus for tensile testing of metal foil  
[NASA-CASE-LAR-10208-1] c 35 N76-18400

Fatigue failure load indicator  
[NASA-CASE-LAR-12027-1] c 39 N79-22537

**LOAD TESTS**

Differential pressure cell Patent  
[NASA-CASE-XAC-00042] c 14 N70-34816

Method and apparatus for transfer function simulator for testing complex systems  
[NASA-CASE-NPO-15696-1] c 36 N82-28619

Portable 90 deg proof loading device  
[NASA-CASE-MSC-20250-1] c 37 N83-29707

**LOADING OPERATIONS**

Air bearing Patent  
[NASA-CASE-XMF-01887] c 15 N71-10617

**LOADS (FORCES)**

Device for handling heavy loads  
[NASA-CASE-XNP-04969] c 11 N69-27466

Two-plane balance Patent  
[NASA-CASE-XAC-00073] c 14 N70-34813

Method of improving the reliability of a rolling element system Patent  
[NASA-CASE-XLE-02999] c 15 N71-16052

Load relieving device Patent  
[NASA-CASE-XMS-06329-1] c 15 N71-20441

Dual latching solenoid valve Patent  
[NASA-CASE-XMS-05890] c 09 N71-23191

Transverse piezoresistance and pinch effect electromechanical transducers Patent  
[NASA-CASE-ERC-10088] c 26 N71-25490

Turn on transient limiter Patent  
[NASA-CASE-GSC-10413] c 10 N71-26531

Synchronous dc direct drive system Patent  
[NASA-CASE-GSC-10065-1] c 10 N71-27138

Force-balanced, throttle valve Patent  
[NASA-CASE-NPO-10808] c 15 N71-27432

Energy absorption device Patent  
[NASA-CASE-XNP-01848] c 15 N71-28959

Air bearing  
[NASA-CASE-WLP-10002] c 15 N72-17451

Device for measuring bearing preload  
[NASA-CASE-MFS-20434] c 11 N72-25288

Variable direction force coupler  
[NASA-CASE-MFS-20317] c 15 N73-13463

Ergometer  
[NASA-CASE-MFS-21109-1] c 05 N73-27941

Three-axis adjustable loading structure  
[NASA-CASE-FRC-10051-1] c 35 N74-13129

G-load measuring and indicator apparatus --- for aircraft  
[NASA-CASE-ARC-10806] c 06 N74-27872

Spring operated accelerator and constant force spring mechanism therefor  
[NASA-CASE-ARC-10898-1] c 35 N77-18417

Penetrometer --- for determining load bearing characteristics of inclined surfaces  
[NASA-CASE-NPO-11103-1] c 35 N77-27367

Load regulating latch  
[NASA-CASE-MSC-19535-1] c 37 N77-32499

**LOCATES SYSTEM**

Lightning tracking system  
[NASA-CASE-KSC-10729-1] c 09 N73-32110

Position determination systems --- using orbital antenna scan of celestial bodies  
[NASA-CASE-MSC-12593-1] c 17 N76-21250

**LOCKING**

Coupling device  
[NASA-CASE-XMS-07846-1] c 09 N69-21927

Interlocking wedge joint  
[NASA-CASE-LAR-12729-1] c 37 N82-26676

Variable length strut with longitudinal compliance and locking capability --- constructing truss and beam structures in space and interconnecting an orbit transfer vehicle and a payload  
[NASA-CASE-MFS-25907-1] c 37 N83-31019

Self-locking telescoping manipulator arm  
[NASA-CASE-MFS-25906-1] c 54 N84-11761

**LOCKS (FASTENERS)**

Locking device with rolling detents Patent  
[NASA-CASE-XMF-01371] c 15 N70-41829

Bearing and gimbal lock mechanism and spiral flex lead module Patent  
[NASA-CASE-GSC-10556-1] c 31 N71-26537

Locking device for turbine rotor blades Patent  
[NASA-CASE-XNP-00816] c 28 N71-28928



- Film feed camera having a detent means Patent  
[NASA-CASE-LAR-10686] c 14 N71-28935
- Safety-type locking pin  
[NASA-CASE-MFS-18495] c 15 N72-11385
- Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-1] c 54 N76-22914
- Portable appliance security apparatus  
[NASA-CASE-GSC-12399-1] c 33 N81-25299
- Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-2] c 52 N81-25661
- High temperature penetrator assembly with bayonet plug and ramp-activated lock  
[NASA-CASE-MSC-18526-1] c 37 N82-24494
- Self-locking mechanical center joint --- for space construction  
[NASA-CASE-LAR-12864-1] c 37 N82-29606
- Aircraft canopy lock  
[NASA-CASE-FRC-11065-1] c 05 N83-19737
- LOCOMOTION**
- Jet shoes  
[NASA-CASE-XLA-08491] c 05 N69-21380
- Training vehicle for controlling attitude Patent  
[NASA-CASE-XMS-02977] c 11 N71-10746
- Restraint torso for a pressurized suit  
[NASA-CASE-MSC-12397-1] c 05 N72-25119
- Kinesimetric method and apparatus  
[NASA-CASE-MSC-18929-1] c 39 N83-20280
- LOGARITHMIC RECEIVERS**
- Logarithmic circuit with wide dynamic range  
[NASA-CASE-GSC-12145-1] c 33 N78-32339
- LOGARITHMS**
- Logarithmic function generator utilizing an exponentially varying signal in an inverse manner  
[NASA-CASE-ERC-10267] c 09 N72-23173
- LOGIC CIRCUITS**
- A method for selective gold diffusion of monolithic silicon devices and/or circuits Patent application  
[NASA-CASE-ERC-10072] c 09 N70-11148
- Relay binary circuit Patent  
[NASA-CASE-XMF-00421] c 09 N70-34502
- Binary to binary-coded-decimal converter Patent  
[NASA-CASE-XNP-00432] c 08 N70-35423
- Analog-to-digital conversion system Patent  
[NASA-CASE-XAC-00404] c 08 N70-40125
- Data processor having multiple sections activated at different times by selective power coupling to the sections Patent  
[NASA-CASE-XGS-04787] c 08 N71-12494
- Binary sequence detector Patent  
[NASA-CASE-XNP-05415] c 08 N71-12505
- AC logic flip-flop circuits Patent  
[NASA-CASE-XGS-00823] c 10 N71-15910
- Logic AND gate for fluid circuits Patent  
[NASA-CASE-XLA-07391] c 12 N71-17579
- Ripple add and ripple subtract binary counters Patent  
[NASA-CASE-XGS-04766] c 08 N71-18602
- Exclusive-Or digital logic module Patent  
[NASA-CASE-XLA-07732] c 08 N71-18751
- Stepping motor control circuit Patent  
[NASA-CASE-GSC-10366-1] c 10 N71-18772
- Serial digital decoder Patent  
[NASA-CASE-NPO-10150] c 08 N71-24650
- BCD to decimal decoder Patent  
[NASA-CASE-XKS-06167] c 08 N71-24890
- Current steering switch Patent  
[NASA-CASE-XNP-08567] c 09 N71-26000
- Parallel generation of the check bits of a PN sequence Patent  
[NASA-CASE-XNP-04623] c 10 N71-26103
- Adaptive system and method for signal generation Patent  
[NASA-CASE-GSC-11367] c 10 N71-26374
- Fast response low power drain logic circuits  
[NASA-CASE-GSC-10878-1] c 10 N72-22236
- Logical function generator  
[NASA-CASE-XLA-05099] c 09 N73-13209
- A synchronous binary array divider  
[NASA-CASE-ERC-10180-1] c 60 N74-20836
- Four phase logic systems --- including integrated microcircuits  
[NASA-CASE-MSC-14240-1] c 33 N75-14957
- A general logic structure for custom LSI circuits  
[NASA-CASE-NPO-14410-1] c 33 N79-25314
- Interleaving device  
[NASA-CASE-GSC-12111-2] c 33 N81-29342
- Logic-controlled occlusive cuff system  
[NASA-CASE-MSC-14836-1] c 52 N82-11770
- General logic structure for custom LSI circuits  
[NASA-CASE-NPO-14410-2] c 33 N82-25440
- Combinational logic for generating gate drive signals for phase control rectifiers  
[NASA-CASE-MFS-25208-1] c 33 N83-10345
- Adaptive reference voltage generator for firing angle control of line-commutated inverters  
[NASA-CASE-MFS-25215-1] c 33 N83-31953
- Adaptive control system for line-commutated inverters  
[NASA-CASE-MFS-25209-1] c 33 N83-35227
- Video processor for air traffic control beacon system  
[NASA-CASE-KSC-11155-1] c 33 N84-15395
- Nanosequencer digital logic controller  
[NASA-CASE-NPO-18116-1] c 60 N84-25306
- LOGIC DESIGN**
- General logic structure for custom LSI circuits  
[NASA-CASE-NPO-14410-2] c 33 N82-25440
- LONG TERM EFFECTS**
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-29390
- LONGERONS**
- Latching mechanism for deployable-restowable columns  
[NASA-CASE-LAR-13169-1] c 37 N84-25063
- LONGITUDINAL CONTROL**
- Three-axis controller Patent  
[NASA-CASE-XAC-01404] c 05 N70-41581
- Pitch attitude stabilization system utilizing engine pressure ratio feedback signals  
[NASA-CASE-LAR-12562-1] c 08 N81-26152
- LONGITUDINAL STABILITY**
- Annular wing  
[NASA-CASE-FRC-11007-2] c 05 N82-26277
- LOOK ANGLES (TRACKING)**
- Method and apparatus for contour mapping using synthetic aperture radar  
[NASA-CASE-NPO-15939-1] c 43 N83-20324
- LOOP ANTENNAS**
- Collapsible loop antenna for space vehicle Patent  
[NASA-CASE-XMF-00437] c 07 N70-40202
- Automatic carrier acquisition system  
[NASA-CASE-NPO-11628-1] c 07 N73-30113
- LOOPS**
- Endless tape cartridge Patent  
[NASA-CASE-XGS-00769] c 14 N70-41647
- Endless tape transport mechanism Patent  
[NASA-CASE-XGS-01223] c 07 N71-10609
- Filter for third order phase locked loops  
[NASA-CASE-NPO-11941-1] c 10 N73-27171
- High speed shutter --- electrically actuated ribbon loop for shuttering optical or fluid passageways  
[NASA-CASE-ARC-10518-1] c 70 N74-21300
- Means for accommodating large overstrain in lead wires --- by storing extra length of wire in stretchable loop  
[NASA-CASE-LAR-10168-1] c 33 N74-22865
- Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-2] c 34 N79-20336
- Pseudonoise code tracking loop  
[NASA-CASE-MSC-18035-1] c 32 N81-15179
- Pulsed phase locked loop strain monitor --- voltage controlled oscillators  
[NASA-CASE-LAR-12772-1] c 33 N83-16626
- LOUVERS**
- Solar concentrator protective system  
[NASA-CASE-NPO-15682-1] c 44 N84-28204
- LOW ASPECT RATIO**
- Landing arrangement for aerial vehicles Patent  
[NASA-CASE-XLA-00142] c 02 N70-33286
- Landing arrangement for aerial vehicle Patent  
[NASA-CASE-XLA-00806] c 02 N70-34858
- LOW COST**
- Fabrication of polycrystalline solar cells on low-cost substrates  
[NASA-CASE-GSC-12022-1] c 44 N76-28635
- Process for utilizing low-cost graphite substrates for polycrystalline solar cells  
[NASA-CASE-GSC-12022-2] c 44 N78-24609
- LOW CURRENTS**
- Low current linearization of magnetic amplifier for dc transducer  
[NASA-CASE-NPO-14617-1] c 33 N81-24338
- LOW DENSITY MATERIALS**
- Method and device for detecting voids in low density material Patent  
[NASA-CASE-MFS-20044] c 14 N71-28993
- Intumescent composition, foamed product prepared therewith and process for making same  
[NASA-CASE-ARC-10304-2] c 27 N74-27037
- Mixing insert for foam dispensing apparatus  
[NASA-CASE-MFS-20607-1] c 37 N76-19436
- Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety  
[NASA-CASE-ARC-11040-2] c 24 N78-27184
- Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-1] c 24 N79-16915
- Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides --- flame retardant foams  
[NASA-CASE-ARC-11107-1] c 25 N80-16116
- LOW FREQUENCIES**
- Seismic displacement transducer Patent  
[NASA-CASE-XMF-00479] c 14 N70-34794
- Low-frequency radio navigation system  
[NASA-CASE-NPO-15264-1] c 04 N84-27713
- LOW GRAVITY MANUFACTURING**
- Method for manufacturing mirrors in zero gravity environment  
[NASA-CASE-MSC-12611-1] c 12 N76-15189
- Gas levitator having fixed levitation node for containerless processing  
[NASA-CASE-MFS-25509-1] c 35 N83-24828
- Method and apparatus for supercooling and solidifying substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650
- LOW MOLECULAR WEIGHTS**
- Process for preparation of high-molecular-weight polyaryloxysilanes Patent  
[NASA-CASE-XMF-08674] c 06 N71-28807
- LOW NOISE**
- Low phase noise digital frequency divider  
[NASA-CASE-NPO-11569] c 10 N73-26229
- Reflected-wave maser --- low noise amplifier  
[NASA-CASE-NPO-13490-1] c 36 N76-31512
- Low noise tuned amplifier  
[NASA-CASE-GSC-12567-1] c 33 N84-22887
- LOW PASS FILTERS**
- Filtering technique based on high-frequency plant modeling for high-gain control  
[NASA-CASE-LAR-12215-1] c 08 N79-23097
- Smoother filter for digital to analog conversion  
[NASA-CASE-FRC-11025-1] c 33 N82-24417
- Discriminator aided phase lock acquisition for suppressed carrier signals  
[NASA-CASE-NPO-14311-1] c 33 N82-29539
- LOW PRESSURE**
- Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546
- Bakeable McLeod gauge  
[NASA-CASE-XGS-01293-1] c 35 N79-33450
- LOW SPEED**
- Variable geometry manned orbital vehicle Patent  
[NASA-CASE-XLA-03691] c 31 N71-15674
- RC rate generator for slow speed measurement Patent  
[NASA-CASE-XMF-02966] c 10 N71-24863
- LOW TEMPERATURE**
- Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-3] c 28 N81-14103
- LOW TEMPERATURE ENVIRONMENTS**
- Frangible electrochemical cell  
[NASA-CASE-XGS-10010] c 03 N72-15986
- LOW TEMPERATURE TESTS**
- Low temperature flexure fatigue cryostat Patent  
[NASA-CASE-XMF-02964] c 14 N71-17659
- Horizontal cryostat for fatigue testing Patent  
[NASA-CASE-XMF-10968] c 14 N71-24234
- Heating and cooling system --- for fatigue test specimens  
[NASA-CASE-LAR-12393-1] c 34 N83-34221
- LOW THRUST**
- Low thrust monopropellant engine  
[NASA-CASE-GSC-12194-2] c 20 N82-18314
- LOW VACUUM**
- Vibration damping system Patent  
[NASA-CASE-XMS-01620] c 23 N71-15673
- LOW VOLTAGE**
- High speed low level electrical stepping switch Patent  
[NASA-CASE-XAC-00060] c 09 N70-39915
- Flexible blade antenna Patent  
[NASA-CASE-MSC-12101] c 09 N71-18720
- Failure sensing and protection circuit for converter networks Patent  
[NASA-CASE-GSC-10114-1] c 10 N71-27366
- LOWER BODY NEGATIVE PRESSURE**
- Method and apparatus for simulating gravitational forces on a living organism  
[NASA-CASE-MSC-20202-1] c 54 N84-16803
- LUBRICANTS**
- Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-01765] c 18 N71-10772
- Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-10337] c 15 N71-24046
- Fluorinated esters of polycarboxylic acids  
[NASA-CASE-MFS-21040-1] c 08 N73-30098
- Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids  
[NASA-CASE-MFS-22411-1] c 37 N74-21058
- Journal bearings --- for lubricant films  
[NASA-CASE-LEW-11076-1] c 37 N74-21061
- Method for milling and drilling glass  
[NASA-CASE-GSC-12638-1] c 31 N83-27058
- LUBRICATING OILS**
- Foil seal Patent  
[NASA-CASE-XLE-05130-2] c 15 N71-19570



## LUBRICATION

- Production of hollow components for rolling element bearings by diffusion welding  
[NASA-CASE-LEW-11026-1] c 15 N73-33383
- Variable resistance constant tension and lubrication device -- using oil-saturated leather wiper  
[NASA-CASE-KSC-10723-1] c 37 N75-13265
- Fluid journal bearings  
[NASA-CASE-LEW-11076-4] c 37 N76-15461
- LUBRICATION SYSTEMS**
- Hybrid lubrication system and bearing Patent  
[NASA-CASE-XNP-01641] c 15 N71-22997
- Fluid lubricant system Patent  
[NASA-CASE-XNP-03972] c 15 N71-23048
- Journal Bearings  
[NASA-CASE-LEW-11076-2] c 37 N74-32921
- Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12321-1] c 37 N78-10467

## LUMINAIRES

- Visual target for retrofire attitude control  
[NASA-CASE-XMS-12158-1] c 31 N69-27499
- Ultraviolet resonance lamp Patent  
[NASA-CASE-ARC-10030] c 09 N71-12521
- Lamp modulator  
[NASA-CASE-KSC-10565] c 09 N72-25250
- Driving lamps by induction  
[NASA-CASE-MFS-21214-1] c 09 N73-30181
- Uniform variable light source  
[NASA-CASE-NPO-11429-1] c 74 N77-21941
- Direct current ballast circuit for metal halide lamp  
[NASA-CASE-MSC-18407-1] c 33 N82-24427

## LUMINOSITY

- Measurement of time differences between luminous events Patent  
[NASA-CASE-XLA-01987] c 23 N71-23976

## LUMINOUS INTENSITY

- Motion picture camera for optical pyrometry Patent  
[NASA-CASE-XLA-00062] c 14 N70-33254
- Radiant energy intensity measurement system Patent  
[NASA-CASE-XNP-06510] c 14 N71-23797
- Continuous plasma laser -- method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma  
[NASA-CASE-XNP-04167-3] c 36 N77-19416
- Solar cell assembly -- for use under high intensity illumination  
[NASA-CASE-LEW-11549-1] c 44 N77-19571
- Compact, high intensity arc lamp with internal magnetic field producing means  
[NASA-CASE-NPO-11510-1] c 33 N77-21315
- System for the measurement of ultra-low stray light levels -- determining the adequacy of large space telescope systems  
[NASA-CASE-MFS-23513-1] c 74 N79-11865
- Wide dynamic range video camera  
[NASA-CASE-MFS-25750-1] c 33 N83-35229

## LUNAR BASES

- Self-adjusting multisegment, deployable, natural circulation radiator Patent  
[NASA-CASE-XHQ-03673] c 33 N71-29046

## LUNAR COMMUNICATION

- Television signal scan rate conversion system Patent  
[NASA-CASE-XMS-07168] c 07 N71-11300
- Emergency lunar communications system  
[NASA-CASE-MFS-21042] c 07 N72-25171

## LUNAR COMPOSITION

- Lunar penetrometer Patent  
[NASA-CASE-XLA-00934] c 14 N71-22765

## LUNAR EXPLORATION

- Backpack carrier Patent  
[NASA-CASE-LAR-10056] c 05 N71-12351
- Lunar penetrometer Patent  
[NASA-CASE-XLA-00934] c 14 N71-22765
- Personal propulsion unit Patent  
[NASA-CASE-MFS-20130] c 28 N71-27585
- Emergency lunar communications system  
[NASA-CASE-MFS-21042] c 07 N72-25171

## LUNAR GRAVITATION

- Subgravity simulator Patent  
[NASA-CASE-XMS-04798] c 11 N71-21474

## LUNAR GRAVITY SIMULATOR

- Impact simulator Patent  
[NASA-CASE-XLA-00493] c 11 N70-34786

## LUNAR LANDING

- Lunar landing flight research vehicle Patent  
[NASA-CASE-XFR-00929] c 31 N70-34966

## LUNAR LOGISTICS

- Personal propulsion unit Patent  
[NASA-CASE-MFS-20130] c 28 N71-27585

## LUNAR ROCKS

- Sample collecting impact bit Patent  
[NASA-CASE-XNP-01412] c 15 N70-42034

## LUNAR SOIL

- Soil particles separator, collector and viewer Patent  
[NASA-CASE-XNP-09770] c 15 N71-20440

- Material handling device Patent  
[NASA-CASE-XNP-09770-3] c 11 N71-27036
- Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420
- Method for obtaining oxygen from lunar or similar soil  
[NASA-CASE-MSC-12408-1] c 46 N74-13011

## LUNAR SURFACE VEHICLES

- Deformable vehicle wheel Patent  
[NASA-CASE-MFS-20400] c 31 N71-18611
- Resilient wheel Patent  
[NASA-CASE-MFS-13929] c 15 N71-27091

## LUNGS

- Instrument for use in performing a controlled Valsalva maneuver Patent  
[NASA-CASE-XMS-01615] c 05 N70-41329

## M

## MACH NUMBER

- Wind tunnel supplementary Mach number minimum section insert  
[NASA-CASE-LAR-12532-1] c 09 N82-11088

## MACHINE TOOLS

- Rock drill for recovering samples  
[NASA-CASE-XNP-07478] c 14 N69-21923
- Protective device for machine and metalworking tools Patent  
[NASA-CASE-XLE-01092] c 15 N71-22797
- Aligning and positioning device Patent  
[NASA-CASE-XMS-04178] c 15 N71-22798
- Extrusion die for refractory metals Patent  
[NASA-CASE-XLE-06773] c 15 N71-23817
- Layout tool Patent  
[NASA-CASE-FRC-10005] c 15 N71-26145
- Optical machine tool alignment indicator Patent  
[NASA-CASE-XAC-09489-1] c 15 N71-26673
- Caterpillar micro positioner  
[NASA-CASE-GSC-10780-1] c 14 N72-16283
- Geneva mechanism -- including star wheel and driver  
[NASA-CASE-NPO-13281-1] c 37 N75-13266
- Zero torque gear head wrench  
[NASA-CASE-NPO-13059-1] c 37 N76-20480
- Precision alignment apparatus for cutting a workpiece  
[NASA-CASE-LAR-11658-1] c 37 N77-14478
- Toggle mechanism for pinching metal tubes  
[NASA-CASE-GSC-12274-1] c 37 N79-28550
- Method and tool for machining a transverse slot about a bore  
[NASA-CASE-LAR-11855-1] c 37 N81-14319
- Crystal cleaving machine  
[NASA-CASE-GSC-12584-1] c 37 N82-32730
- Holding fixture for a hot stamping press  
[NASA-CASE-GSC-12619-1] c 37 N84-12491

## MACHINERY

- Stirring apparatus for plural test tubes Patent  
[NASA-CASE-XAC-06956] c 15 N71-21177
- Precipitation detector Patent  
[NASA-CASE-XLA-02619] c 10 N71-26334
- Apparatus for forming drive belts  
[NASA-CASE-NPO-13205-1] c 31 N74-32917

## MACHINING

- Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135
- Lathe tool bit and holder for machining fiberglass materials  
[NASA-CASE-XLA-10470] c 15 N72-21489
- Drilled ball bearing with a one piece anti-tipping cage assembly  
[NASA-CASE-LEW-11925-1] c 37 N75-31446

## MAGNESIUM

- Nondestructive spot test method for magnesium and magnesium alloys  
[NASA-CASE-LAR-10953-1] c 17 N73-27446

## MAGNESIUM ALLOYS

- Method and apparatus for bonding a plastics sleeve onto a metallic body Patent  
[NASA-CASE-XLA-01262] c 15 N71-21404
- Nondestructive spot test method for magnesium and magnesium alloys  
[NASA-CASE-LAR-10953-1] c 17 N73-27446

## MAGNESIUM OXIDES

- Method for determining presence of OH in magnesium oxide  
[NASA-CASE-NPO-10774] c 06 N72-17095

## MAGNET COILS

- Superconducting alternator  
[NASA-CASE-XLE-02824] c 03 N69-39890
- Circuit breaker utilizing magnetic latching relays Patent  
[NASA-CASE-MSC-11277] c 09 N71-29008

## MAGNETIC AMPLIFIERS

- Low current linearization of magnetic amplifier for dc transducer  
[NASA-CASE-NPO-14617-1] c 33 N81-24338

## MAGNETIC BEARINGS

- Linear magnetic bearing  
[NASA-CASE-GSC-12517-1] c 37 N83-32067

## MAGNETIC CHARGE DENSITY

- Electrostatic ion engine having a permanent magnetic circuit Patent  
[NASA-CASE-XLE-01124] c 28 N71-14043

## MAGNETIC CIRCUITS

- Electrostatic ion engine having a permanent magnetic circuit Patent  
[NASA-CASE-XLE-01124] c 28 N71-14043

## MAGNETIC COILS

- Time-division multiplexer Patent  
[NASA-CASE-XNP-00431] c 09 N70-38998
- Linear magnetic brake with two windings Patent  
[NASA-CASE-XLE-05079] c 15 N71-17652
- Safe-arm initiator Patent  
[NASA-CASE-LAR-10372] c 09 N71-18599
- Magnifying image intensifier  
[NASA-CASE-GSC-12010-1] c 74 N78-18905
- Reciprocating linear motor  
[NASA-CASE-GSC-12773-1] c 33 N83-12332

## MAGNETIC CONTROL

- Fast opening diaphragm Patent  
[NASA-CASE-XLA-03660] c 15 N71-21060
- Magnetically controlled plasma accelerator Patent  
[NASA-CASE-XLA-00327] c 25 N71-29184
- Axially and radially controllable magnetic bearing  
[NASA-CASE-GSC-11551-1] c 37 N76-18459
- Magnetic bearing system  
[NASA-CASE-GSC-11978-1] c 37 N77-17464
- Low temperature latching solenoid  
[NASA-CASE-MSC-18106-1] c 33 N82-11357

## MAGNETIC COOLING

- Reciprocating magnetic refrigerator employing tandem porous matrices within a reciprocating displacer  
[NASA-CASE-NPO-16257-1] c 31 N84-24830

## MAGNETIC CORES

- Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00458] c 09 N70-38604
- Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00131] c 09 N71-38995
- Magnetic counter Patent  
[NASA-CASE-XNP-08836] c 09 N71-12515
- Pulse-type magnetic core memory element circuit with blocking oscillator feedback Patent  
[NASA-CASE-XGS-03303] c 08 N71-18595
- Magnetic core current steering commutator Patent  
[NASA-CASE-NPO-10201] c 08 N71-18694
- Drive circuit utilizing two cores Patent  
[NASA-CASE-XNP-01318] c 10 N71-23033
- Saturation current protection apparatus for saturable core transformers Patent  
[NASA-CASE-ERC-10075] c 09 N71-24800
- Magnetic power switch Patent  
[NASA-CASE-NPO-10242] c 09 N71-24803
- Unsaturating saturable core transformer Patent  
[NASA-CASE-ERC-10125] c 09 N71-24893
- Thermally cycled magnetometer Patent  
[NASA-CASE-XAC-03740] c 14 N71-26135
- Digital memory sense amplifying means Patent  
[NASA-CASE-XNP-01012] c 08 N71-28925
- Method of detecting impending saturation of magnetic cores  
[NASA-CASE-ERC-10089] c 23 N72-17747
- Current steering commutator  
[NASA-CASE-NPO-10743] c 08 N72-21199
- Banded transformer cores  
[NASA-CASE-NPO-11966-1] c 33 N74-17928

## MAGNETIC DIPOLES

- Balance torquemeter Patent  
[NASA-CASE-XGS-01013] c 14 N71-23725

## MAGNETIC DISKS

- Disk pack cleaning table Patent Application  
[NASA-CASE-LAR-10590-1] c 15 N70-26819

## MAGNETIC FIELD CONFIGURATIONS

- Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump  
[NASA-CASE-NPO-13663-1] c 35 N77-14406
- Magnifying image intensifier  
[NASA-CASE-GSC-12010-1] c 74 N78-18905
- Linear magnetic bearings -- active magnetic suspension of armatures  
[NASA-CASE-GSC-12582-1] c 37 N81-18469
- Ring-cusp ion thruster with shell anode  
[NASA-CASE-LEW-13881-1] c 72 N83-21903

## MAGNETIC FIELDS

- Electric-arc heater Patent  
[NASA-CASE-XLA-00330] c 33 N70-34540
- Means for communicating through a layer of ionized gases Patent  
[NASA-CASE-XLA-01127] c 07 N70-41372
- Liquid storage tank venting device for zero gravity environment Patent  
[NASA-CASE-XLE-01449] c 15 N70-41646

- Electrostatic ion engine having a permanent magnetic circuit Patent  
[NASA-CASE-XLE-01124] c 28 N71-14043
- Wide range linear fluxgate magnetometer Patent  
[NASA-CASE-XGS-01587] c 14 N71-15962
- Position sensing device employing misaligned magnetic field generating and detecting apparatus Patent  
[NASA-CASE-XGS-07514] c 23 N71-16099
- Nonmagnetic, explosive actuated indexing device Patent  
[NASA-CASE-XGS-02422] c 15 N71-21529
- Solar cell and circuit array and process for nullifying magnetic fields Patent  
[NASA-CASE-XGS-03390] c 03 N71-23187
- Balance torque meter Patent  
[NASA-CASE-XGS-01013] c 14 N71-23725
- Two axis fluxgate magnetometer Patent  
[NASA-CASE-GSC-10441-1] c 14 N71-27325
- Segmented superconducting magnet for a broadband traveling wave maser Patent  
[NASA-CASE-XGS-10518] c 16 N71-28554
- Magnetic position detection method and apparatus  
[NASA-CASE-ARC-10179-1] c 21 N72-22619
- Ion thruster  
[NASA-CASE-LEW-10770-1] c 28 N72-22770
- Ion thruster magnetic field control  
[NASA-CASE-LEW-10835-1] c 28 N72-22771
- Determining distance to lightning strokes from a single station  
[NASA-CASE-KSC-10698] c 07 N73-20175
- Superconductive magnetic-field-trapping device  
[NASA-CASE-XNP-01185] c 26 N73-28710
- Electron beam controller --- using magnetic field to refocus spent electron beam in microwave oscillator tube  
[NASA-CASE-LEW-11617-1] c 33 N74-10195
- Magnetometer using superconducting rotating body  
[NASA-CASE-NPO-13388-1] c 35 N76-18390
- Compact, high intensity arc lamp with internal magnetic field producing means  
[NASA-CASE-NPO-11510-1] c 33 N77-21315
- Magnetic heat pumping  
[NASA-CASE-LEW-12508-1] c 34 N78-17335
- Atomic hydrogen storage --- cryotrapping and magnetic field strength  
[NASA-CASE-LEW-12081-2] c 28 N80-20402
- Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-3] c 28 N81-14103
- Magnetic field control --- electromechanical torquing device  
[NASA-CASE-MFS-23828-1] c 33 N82-26569
- Reciprocating linear motor  
[NASA-CASE-GSC-12773-1] c 33 N83-12332
- Magnetic heading reference  
[NASA-CASE-LAR-12638-1] c 04 N84-14132
- MAGNETIC FILMS**  
Manganese bismuth films with narrow transfer characteristics for Curie-point switching  
[NASA-CASE-NPO-11336-1] c 76 N79-16678
- MAGNETIC FLUX**  
Excitation and detection circuitry for a flux responsive magnetic head  
[NASA-CASE-XNP-04183] c 09 N69-24329
- Cryogenic apparatus for measuring the intensity of magnetic fields  
[NASA-CASE-XAC-02407] c 14 N69-27423
- Flux sensing device using a tubular core with toroidal gating coil and solenoidal output coil wound thereon Patent  
[NASA-CASE-XGS-01881] c 09 N70-40123
- Hybrid lubrication system and bearing Patent  
[NASA-CASE-XNP-01641] c 15 N71-22997
- Saturation current protection apparatus for saturable core transformers Patent  
[NASA-CASE-ERC-10075] c 09 N71-24800
- Continuous magnetic flux pump  
[NASA-CASE-XNP-01187] c 15 N73-28516
- Magnetic-flux pump  
[NASA-CASE-XNP-01188] c 15 N73-32361
- Magnetic bearing --- for supplying magnetic fluxes  
[NASA-CASE-GSC-11079-1] c 37 N75-18574
- Linear magnetic motor/generator --- to generate electric energy using magnetic flux for spacecraft power supply  
[NASA-CASE-GSC-12518-1] c 33 N82-24421
- Linear magnetic bearing  
[NASA-CASE-GSC-12517-1] c 37 N83-32067
- MAGNETIC FORMING**  
Magnetomotive metal working device Patent  
[NASA-CASE-XMF-03793] c 15 N71-24833
- Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-3] c 15 N71-24865
- MAGNETIC INDUCTION**  
Continuously operating induction plasma accelerator Patent  
[NASA-CASE-XLA-01354] c 25 N70-36946
- Drive circuit for minimizing power consumption in inductive load Patent  
[NASA-CASE-NPO-10716] c 09 N71-24892
- Constant frequency output two stage induction machine systems Patent  
[NASA-CASE-ERC-10065] c 09 N71-27364
- Magnetically actuated tuning method for Gunn oscillators  
[NASA-CASE-NPO-12106] c 09 N73-15235
- High speed shutter --- electrically actuated ribbon loop for shuttering optical or fluid passageways  
[NASA-CASE-ARC-10516-1] c 70 N74-21300
- MAGNETIC LENSES**  
Quadrupole mass filter with means to generate a noise spectrum exclusive of the resonant frequency of the desired ions to deflect stable ions  
[NASA-CASE-XNP-04231] c 14 N73-32325
- MAGNETIC MATERIALS**  
Low viscosity magnetic fluid obtained by the colloidal suspension of magnetic particles Patent  
[NASA-CASE-XLE-01512] c 12 N70-40124
- MAGNETIC MEASUREMENT**  
Cryogenic apparatus for measuring the intensity of magnetic fields  
[NASA-CASE-XAC-02407] c 14 N69-27423
- Wide range linear fluxgate magnetometer Patent  
[NASA-CASE-XGS-01587] c 14 N71-15962
- RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171
- Magnetometer using superconducting rotating body  
[NASA-CASE-NPO-13388-1] c 35 N76-18390
- MAGNETIC POLES**  
Magnetohydrodynamic induction machine  
[NASA-CASE-XNP-07481] c 25 N69-21929
- Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump  
[NASA-CASE-NPO-13663-1] c 35 N77-14406
- MAGNETIC PUMPING**  
Continuous magnetic flux pump  
[NASA-CASE-XNP-01187] c 15 N73-28516
- Magnetic-flux pump  
[NASA-CASE-XNP-01188] c 15 N73-32361
- Magnetocaloric pump --- for cryogenic fluids  
[NASA-CASE-LEW-11672-1] c 37 N74-27904
- Magnetic heat pumping  
[NASA-CASE-LEW-12508-3] c 34 N83-29625
- MAGNETIC RECORDING**  
Incremental tape recorder and data rate converter Patent  
[NASA-CASE-XNP-02778] c 08 N71-22710
- Magnetic recording head and method of making same Patent  
[NASA-CASE-GSC-10097-1] c 08 N71-27210
- Thermomagnetic recording and magnetic-optic playback system  
[NASA-CASE-NPO-10872-1] c 35 N79-16246
- Manganese bismuth films with narrow transfer characteristics for Curie-point switching  
[NASA-CASE-NPO-11336-1] c 76 N79-16678
- MAGNETIC SIGNALS**  
Plural recorder system  
[NASA-CASE-XMS-06949] c 09 N69-21467
- MAGNETIC STORAGE**  
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[NASA-CASE-XGS-00174] c 08 N70-34743
- Magnetic matrix memory system Patent  
[NASA-CASE-XMF-05835] c 08 N71-12504
- Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
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- Redundant memory organization Patent  
[NASA-CASE-GSC-10584] c 10 N71-29135
- Dual purpose momentum wheels for spacecraft with magnetic recording  
[NASA-CASE-NPO-11481] c 21 N73-13644
- Atomic hydrogen storage method and apparatus  
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- MAGNETIC SUSPENSION**  
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- Magnetic suspension and pointing system --- on a carrier vehicle  
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- Linear magnetic bearings --- active magnetic suspension of armatures  
[NASA-CASE-GSC-12582-1] c 37 N81-16469
- Stirling cycle cryogenic cooler --- magnetically suspended pistons  
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- Linear magnetic bearings  
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- Magnetic bearing and motor  
[NASA-CASE-GSC-12726-1] c 37 N83-34323
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[NASA-CASE-NPO-10242] c 09 N71-24803
- Current steering switch Patent  
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[NASA-CASE-XGS-00769] c 14 N70-41647
- Endless tape transport mechanism Patent  
[NASA-CASE-XGS-01223] c 07 N71-10609
- Low friction magnetic recording tape Patent  
[NASA-CASE-XGS-00373] c 23 N71-15978
- System for recording and reproducing pulse code modulated data Patent  
[NASA-CASE-XGS-01021] c 08 N71-21042
- Friction measuring apparatus Patent  
[NASA-CASE-XNP-08680] c 14 N71-22995
- Technique for recovery of voice data from heat damaged magnetic tape  
[NASA-CASE-MSC-14219-1] c 32 N74-27612
- Automatic character skew and spacing checking network --- of digital tape drive systems  
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- MAGNETIZATION**  
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- MAGNETO-OPTICS**  
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- MAGNETOHYDRODYNAMIC FLOW**  
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[NASA-CASE-LEW-11180-1] c 25 N73-25760
- MAGNETOHYDRODYNAMIC GENERATORS**  
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[NASA-CASE-XNP-07481] c 25 N69-21929
- Slug flow magnetohydrodynamic generator  
[NASA-CASE-XLE-02083] c 03 N69-39983
- Two-fluid magnetohydrodynamic system and method for thermal-electric power conversion Patent  
[NASA-CASE-XNP-00644] c 03 N70-36803
- Crossed-field MHD plasma generator/accelerator Patent  
[NASA-CASE-XLA-03374] c 25 N71-15562
- Solar driven liquid metal MHD power generator  
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- Cryogenic apparatus for measuring the intensity of magnetic fields  
[NASA-CASE-XAC-02407] c 14 N69-27423
- Flux sensing device using a tubular core with toroidal gating coil and solenoidal output coil wound thereon Patent  
[NASA-CASE-XGS-01881] c 09 N70-40123
- Wide range linear fluxgate magnetometer Patent  
[NASA-CASE-XGS-01587] c 14 N71-15962
- Optically pumped resonance magnetometer for determining vectorial components in a spatial coordinate system Patent  
[NASA-CASE-XGS-04879] c 14 N71-20428
- Thermally cycled magnetometer Patent  
[NASA-CASE-XAC-03740] c 14 N71-26135
- Two axis fluxgate magnetometer Patent  
[NASA-CASE-GSC-10441-1] c 14 N71-27325
- Hall effect magnetometer  
[NASA-CASE-LEW-11632-2] c 35 N75-13213
- Magnetometer using superconducting rotating body  
[NASA-CASE-NPO-13388-1] c 35 N76-18390
- Magnetic heading reference  
[NASA-CASE-LAR-11387-1] c 04 N76-20114
- Magnetic heading reference  
[NASA-CASE-LAR-11387-2] c 04 N77-19056
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- Low energy electron magnetometer using a monoenergetic electron beam  
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Miniature cyclotron resonance ion source using small permanent magnet  
[NASA-CASE-NPO-14324-1] c 72 N80-27163  
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[NASA-CASE-GSC-12517-1] c 37 N83-32067  
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[NASA-CASE-NPO-15706-1] c 35 N84-28017

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Image magnification adapter for cameras Patent  
[NASA-CASE-XMF-03844-1] c 14 N71-26474  
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[NASA-CASE-LAR-10496-1] c 14 N72-22437  
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[NASA-CASE-GSC-12010-1] c 74 N78-18905  
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[NASA-CASE-NPO-14813-1] c 74 N82-24072  
Spectral slicing X-ray telescope with variable magnification  
[NASA-CASE-MFS-25942-1] c 89 N84-17084

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[NASA-CASE-XGS-01013] c 14 N71-23725

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[NASA-CASE-NPO-10567] c 08 N71-24633  
Bonding or repairing process  
[NASA-CASE-MSC-12357] c 15 N73-12489  
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[NASA-CASE-KSC-11042-2] c 02 N81-26073  
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[NASA-CASE-KSC-11042-1] c 09 N82-29330  
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[NASA-CASE-XLA-00304] c 27 N70-34783  
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[NASA-CASE-XLA-04143] c 15 N71-17687  
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Sequentially deployable maneuverable tetrahedral beam  
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Active clearance control system for a turbomachine  
[NASA-CASE-LEW-12938-1] c 07 N82-32366  
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[NASA-CASE-MFS-21611-1] c 54 N75-12616  
Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041  
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[NASA-CASE-NPO-13386-1] c 54 N75-27758  
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[NASA-CASE-MFS-25906-1] c 54 N84-11761  
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[NASA-CASE-XLA-01332] c 31 N71-15664  
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[NASA-CASE-XNP-02595] c 31 N71-21881  
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[NASA-CASE-XLA-08913] c 14 N71-28933  
Collapsible Apollo couch  
[NASA-CASE-MSC-13140] c 05 N72-11085  
Space vehicle with artificial gravity and earth-like environment  
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[NASA-CASE-XAC-00030] c 14 N70-34820  
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[NASA-CASE-LAR-10000] c 14 N73-30394

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Multiple circuit switch apparatus with improved pivot actuator structure Patent  
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Null device for hand controller Patent  
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Manually actuated heat pump  
[NASA-CASE-NPO-10677] c 05 N72-11084  
Numerical computer peripheral interactive device with manual controls  
[NASA-CASE-NPO-11497] c 08 N73-25206  
Solid state controller three axes controller  
[NASA-CASE-MSC-12394-1] c 08 N74-10942  
G-load measuring and indicator apparatus  
[NASA-CASE-ARC-10806-1] c 35 N75-29381  
Hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands  
[NASA-CASE-LAR-12412-1] c 08 N82-24205

## MANUFACTURING

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[NASA-CASE-ERC-10072] c 09 N70-11148  
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Method of making screen by casting Patent  
[NASA-CASE-XLE-00953] c 15 N71-15966  
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[NASA-CASE-MFS-20410] c 15 N71-19214

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[NASA-CASE-NPO-10123] c 15 N71-24835  
Method of making a solid propellant rocket motor Patent  
[NASA-CASE-XLA-04126] c 28 N71-26779  
Method of making shielded flat cable Patent  
[NASA-CASE-MFS-13687] c 09 N71-28691  
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[NASA-CASE-GSC-11367-1] c 44 N74-19692  
Apparatus for forming drive belts  
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[NASA-CASE-LAR-10337-1] c 24 N75-30260  
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[NASA-CASE-MFS-23518-3] c 44 N80-16452  
Polymeric compositions and their method of manufacture --- forming filled polymer systems using cryogenics  
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Segmented superconducting magnet for a broadband traveling wave maser Patent  
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- Nuclear mass flowmeter  
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- Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
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- Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent  
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- Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent  
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- Quadrupole mass filter with means to generate a noise spectrum exclusive of the resonant frequency of the desired ions to deflect stable ions  
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- Fast scan control for deflection type mass spectrometers  
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- Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump  
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- Dual acting slit control mechanism  
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[NASA-CASE-LAR-13174-1] c 72 N84-25431
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- Method and apparatus for cryogenic wire stripping Patent  
[NASA-CASE-MFS-10340] c 15 N71-17628
- Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
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- Method of making foamed materials in zero gravity  
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- Mechanically extendible telescoping boom  
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- Apparatus for inserting and removing specimens from high temperature vacuum furnaces  
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- Logical function generator  
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- Solar cell submodule Patent  
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- Magnetic matrix memory system Patent  
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- Solar cell matrix Patent  
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### MEASURING INSTRUMENTS

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- Angular measurement system Patent  
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[NASA-CASE-NPO-10737] c 28 N72-11709

**MERCURY CADMIUM TELLURIDES**

Method of preparing radially homogeneous mercury cadmium telluride crystals  
[NASA-CASE-MFS-25786-1] c 76 N83-18533

**MERCURY VAPOR**

Mercury capillary interrupter Patent  
[NASA-CASE-XNP-02251] c 12 N71-20896

Rotating shaft seal Patent  
[NASA-CASE-XNP-02862-1] c 15 N71-26294

**MERIDIONAL FLOW**

Optical system with reflective baffles  
[NASA-CASE-ARC-11502-1] c 74 N84-26400

**METABOLIC WASTES**

Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721

Method and automated apparatus for detecting coliform organisms  
[NASA-CASE-MSC-16777-1] c 51 N80-27067

**METABOLISM**

Automated analysis of oxidative metabolites  
[NASA-CASE-ARC-10469-1] c 25 N75-12086

Process for control of cell division  
[NASA-CASE-LAR-10773-3] c 51 N77-25769

Metabolic rate meter and method  
[NASA-CASE-MSC-12239-1] c 52 N79-21750

**METAL AIR BATTERIES**

Chemically rechargeable battery  
[NASA-CASE-NPO-16024-1] c 44 N84-23020

**METAL BONDING**

Bonding thermoelectric elements to nonmagnetic refractory metal electrodes  
[NASA-CASE-XGS-04554] c 15 N69-39788

Method of making a diffusion bonded refractory coating Patent  
[NASA-CASE-XLE-01604-2] c 15 N71-15610

Metal valve pinhole with encapsulated elastomeric body Patent  
[NASA-CASE-MSC-12116-1] c 15 N71-17648

Apparatus for the determination of the existence or non-existence of a bonding between two members Patent  
[NASA-CASE-MFS-13686] c 15 N71-18132

Soldering with solder flux which leaves corrosion resistant coating Patent  
[NASA-CASE-XNP-03459] c 15 N71-21078

Bonded elastomeric seal for electrochemical cells Patent  
[NASA-CASE-XGS-02631] c 03 N71-23006

Silicon solar cell with cover glass bonded to cell by metal pattern Patent  
[NASA-CASE-XLE-08569] c 03 N71-23449

Positive contact resistance soldering unit  
[NASA-CASE-KSC-10242] c 15 N72-23497

Bonding or repairing process  
[NASA-CASE-MSC-12357] c 15 N73-12489

Totally confined explosive welding — apparatus to reduce noise level and protect personnel during explosive bonding  
[NASA-CASE-LAR-10941-1] c 37 N74-21057

Ultrasonically bonded valve assembly  
[NASA-CASE-NPO-13360-1] c 37 N75-25185

Bimetallic junctions  
[NASA-CASE-LEW-11573-1] c 26 N77-28265

Heat exchanger and method of making — bonding rocket chambers with a porous metal matrix  
[NASA-CASE-LEW-12441-1] c 34 N79-13289

Totally confined explosive welding  
[NASA-CASE-LAR-10941-2] c 37 N79-13364

Method and apparatus for holding two separate metal pieces together for welding  
[NASA-CASE-GSC-12318-1] c 37 N80-23655

Heat exchanger and method of making — rocket lining  
[NASA-CASE-LEW-12441-2] c 34 N80-24573

Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206

X-ray determination of parts alignment  
[NASA-CASE-MSC-20418-1] c 37 N83-17882

Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903

Thermal barrier coating system having improved adhesion  
[NASA-CASE-LEW-1335901] c 27 N83-31855

Improved thermal barrier coating system  
[NASA-CASE-LEW-13324-2] c 26 N83-34014

Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670

Impacting device for testing insulation  
[NASA-CASE-MFS-25862-2] c 37 N84-33807

**METAL COATINGS**

Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443

Soldering with solder flux which leaves corrosion resistant coating Patent  
[NASA-CASE-XNP-03459] c 15 N71-21078

Thermal control coating Patent  
[NASA-CASE-XLA-01995] c 18 N71-23047

Trialkyl-dihalotantalum and niobium compounds Patent  
[NASA-CASE-XNP-04023] c 06 N71-28808

Silicide coatings for refractory metals Patent  
[NASA-CASE-XLE-10910] c 18 N71-29040

Selective nickel deposition  
[NASA-CASE-LEW-10965-1] c 15 N72-25452



Wide temperature range electronic device with lead attachment  
[NASA-CASE-ERC-10224-2] c 09 N73-27150  
Panel for selectively absorbing solar thermal energy and the method of producing said panel  
[NASA-CASE-MFS-22562-1] c 44 N76-14595  
Ultraviolet light reflective coating  
[NASA-CASE-GSC-11786-1] c 24 N76-24363  
Metallic hot wire anemometer — for high speed wind tunnel tests  
[NASA-CASE-ARC-10911-1] c 35 N77-20400  
Solar cell collector  
[NASA-CASE-LEW-12552-1] c 44 N78-25527  
Electromagnetic radiation energy arrangement — coatings for solar energy absorption and infrared reflection  
[NASA-CASE-WOO-00428-1] c 32 N79-19186  
Improved thermal barrier coating system  
[NASA-CASE-LEW-13324-1] c 26 N82-26431  
Improved nickel base coating alloy — oxidation resistant coatings  
[NASA-CASE-LEW-13834-1] c 26 N83-24639  
Electrodes for solid state devices  
[NASA-CASE-NPO-15161-1] c 33 N84-16456  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670

**METAL CUTTING**  
Metal shearing energy absorber  
[NASA-CASE-HQN-10638-1] c 15 N73-30460  
Vee-notching device — with adjustable carriage  
[NASA-CASE-MFS-20730-1] c 39 N74-13131  
Hole cutter — drill bits and rotating shaft  
[NASA-CASE-MFS-22649-1] c 37 N75-25186  
Method and tool for machining a transverse slot about a bore  
[NASA-CASE-LAR-11855-1] c 37 N81-14319

**METAL FATIGUE**  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-2] c 24 N81-26179

**METAL FIBERS**  
Lightweight electrically-powered flexible thermal laminate — made of metal and nonconductive yarns  
[NASA-CASE-MSC-12682-1] c 33 N79-12331

**METAL FILMS**  
Means and methods of depositing thin films on substrates Patent  
[NASA-CASE-XNP-00595] c 15 N70-34967  
Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-01765] c 18 N71-10772  
Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent  
[NASA-CASE-XGS-02011] c 15 N71-20739  
Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-10337] c 15 N71-24046  
Magnetic recording head and method of making same Patent  
[NASA-CASE-GSC-10097-1] c 08 N71-27210  
Light regulator  
[NASA-CASE-LAR-10836-1] c 26 N72-27784  
Deposition of alloy films — on irregularly shaped metal object  
[NASA-CASE-LEW-11262-1] c 27 N74-13270  
Multitarget sequential sputtering apparatus  
[NASA-CASE-NPO-13345-1] c 37 N75-19684  
Method of forming metal hydride films  
[NASA-CASE-LEW-12083-1] c 37 N78-13436  
Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015  
Fire blocking systems for aircraft seat cushions  
[NASA-CASE-ARC-11423-1] c 03 N84-33394  
Glass heating panels and method for preparing the same from architectural reflective glass  
[NASA-CASE-NPO-15753-1] c 27 N84-33589

**METAL FINISHING**  
Selective plating of etched circuits without removing previous plating Patent  
[NASA-CASE-XGS-03120] c 15 N71-24047  
Surface finishing — for aircraft wings  
[NASA-CASE-MSC-12631-1] c 24 N77-28225

**METAL FOILS**  
Folding apparatus Patent  
[NASA-CASE-XLA-00137] c 15 N70-33180  
Thermal control of space vehicles Patent  
[NASA-CASE-XLA-01291] c 33 N70-36617  
Thermal radiation shielding Patent  
[NASA-CASE-XLE-03432] c 33 N71-24145  
Method of making porous conductive supports for electrodes — by electroforming and stacking nickel foils  
[NASA-CASE-GSC-11367-1] c 44 N74-19692  
Method and apparatus for tensile testing of metal foil  
[NASA-CASE-LAR-10208-1] c 35 N76-18400  
Process for preparing high temperature polyimide film laminates  
[NASA-CASE-LAR-12742-1] c 24 N81-12174

Hot foil transducer skin friction sensor  
[NASA-CASE-LAR-12321-1] c 35 N82-24470  
Tensile testing apparatus  
[NASA-CASE-LAR-13243-1] c 35 N84-20804

**METAL FUELS**  
Preparing oxidizer coated metal fuel particles  
[NASA-CASE-NPO-11975-1] c 28 N74-33209

**METAL HALIDES**  
Process for making anhydrous metal halides  
[NASA-CASE-LEW-11860-1] c 37 N76-18458  
Direct current ballast circuit for metal halide lamp  
[NASA-CASE-MSC-18407-1] c 33 N82-24427  
High power metallic halide laser — amplifying a copper chloride laser  
[NASA-CASE-NPO-14782-1] c 36 N82-28616  
Method and apparatus for convection control of metallic halide vapor density in a metallic halide laser  
[NASA-CASE-NPO-15021-1] c 36 N83-10417

**METAL HYDRIDES**  
Method of forming metal hydride films  
[NASA-CASE-LEW-12083-1] c 37 N78-13436

**METAL IONS**  
Metal containing polymers from cyclic tetrameric phenylphosphonitrimides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363  
Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206  
Process for improving moisture resistance of epoxy resins by addition of chromium ions  
[NASA-CASE-LAR-13226-1] c 27 N84-20700  
Process for improving mechanical properties of epoxy resins by addition of cobalt ions  
[NASA-CASE-LAR-13230-1] c 24 N84-34571

**METAL JOINTS**  
Cryogenic connector for vacuum use Patent  
[NASA-CASE-XGS-02441] c 15 N70-41829  
Mechanical bonding of metal method  
[NASA-CASE-LEW-12841-1] c 26 N83-10170

**METAL MATRIX COMPOSITES**  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288  
Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142  
Self-lubricating gears and other mechanical parts Patent  
[NASA-CASE-MFS-14971] c 15 N71-24984  
Refractory metal base alloy composites  
[NASA-CASE-XLE-03940-2] c 17 N72-28536  
Method of preparing graphite reinforced aluminum composite  
[NASA-CASE-MFS-21077-1] c 24 N75-26135  
Method of making reinforced composite structure  
[NASA-CASE-LEW-12619-1] c 24 N77-19171  
Heat exchanger and method of making — bonding rocket chambers with a porous metal matrix  
[NASA-CASE-LEW-12441-1] c 34 N79-13289  
Preparation of monotelectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown  
[NASA-CASE-MFS-23816-1] c 26 N80-23419  
Heat exchanger and method of making — rocket lining  
[NASA-CASE-LEW-12441-2] c 34 N80-24573  
Method for alleviating thermal stress damage in laminates — metal matrix composites  
[NASA-CASE-LEW-12493-1] c 24 N81-17170  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-2] c 24 N81-26179  
Fuselage structure using advanced technology fiber reinforced composites  
[NASA-CASE-LAR-11688-1] c 24 N82-26384  
Method and apparatus for strengthening boron fibers — high temperature oxidation  
[NASA-CASE-LEW-13826-1] c 24 N82-26385  
Metal matrix composite structural panel construction  
[NASA-CASE-LAR-12807-1] c 24 N84-11214  
Arc spray fabrication of metal matrix composite monotype — high temperature fiber-reinforced superalloy composites  
[NASA-CASE-LEW-13826-1] c 24 N84-15203

**METAL OXIDE SEMICONDUCTORS**  
Gyrator employing field effect transistors  
[NASA-CASE-MFS-21433] c 09 N73-20232  
Radiation hardening of MOS devices by boron — for stabilizing gate threshold potential of field effect device  
[NASA-CASE-GSC-11425-1] c 76 N74-20320  
Integrated P-channel MOS gyrator  
[NASA-CASE-MFS-22343-1] c 33 N74-34638  
Radiation hardening of MOS devices by boron — for stabilizing gate threshold potential  
[NASA-CASE-GSC-11425-2] c 76 N75-25730  
Solar cell collector  
[NASA-CASE-LEW-12552-1] c 44 N78-25527

Multilevel metallization method for fabricating a metal oxide semiconductor device  
[NASA-CASE-MFS-23541-1] c 76 N79-14906  
Method of making V-MOS field effect transistors utilizing a two-step anisotropic etching and ion implantation  
[NASA-CASE-GSC-12515-1] c 33 N81-26360  
Schottky barrier solar cell  
[NASA-CASE-NPO-13689-2] c 44 N81-29525  
Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360  
GaAs Schottky barrier photo-responsive device and method of fabrication — photovoltaic cells  
[NASA-CASE-GSC-12816-1] c 76 N83-30268  
High voltage V-groove solar cell  
[NASA-CASE-LEW-13401-2] c 44 N83-32177  
Laser activated MTOS microwave device  
[NASA-CASE-NPO-16112-1] c 36 N84-12463

**METAL OXIDES**  
Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142  
Photoetching of metal-oxide layers  
[NASA-CASE-ERC-10108] c 06 N72-21094  
Production of metal powders  
[NASA-CASE-XLE-06461] c 17 N72-22530  
Method for obtaining oxygen from lunar or similar soil  
[NASA-CASE-MSC-12408-1] c 46 N74-13011  
Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MSC-18172-1] c 26 N80-19237  
Method for depositing an oxide coating  
[NASA-CASE-LEW-13131-1] c 44 N83-10494  
Method of forming oxide coatings — for solar collector heating panels  
[NASA-CASE-LEW-13132-1] c 27 N83-29388  
Absorbable-susceptor joining of ceramic surfaces  
[NASA-CASE-NPO-15640-1] c 27 N84-22748  
Improved thermal barrier coating system  
[NASA-CASE-LEW-14057-1] c 27 N84-33595

**METAL PARTICLES**  
Slug flow magnetohydrodynamic generator  
[NASA-CASE-XLE-02083] c 03 N89-39983  
Method of making a cermet Patent  
[NASA-CASE-LEW-10218-1] c 18 N71-28729  
Preparing oxidizer coated metal fuel particles  
[NASA-CASE-NPO-11975-1] c 28 N74-33209

**METAL PLATES**  
Detector panels-micrometeoroid impact Patent  
[NASA-CASE-XLA-05906] c 31 N71-18221  
Nuclear fuel elements  
[NASA-CASE-XLE-00209] c 22 N73-32528  
Strain arrestor plate for fused silica tile — bonding of thermal insulation to metallic plates or structural parts  
[NASA-CASE-MSC-14182-1] c 27 N76-14264  
Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492  
Multicolor printing plate joining  
[NASA-CASE-LEW-13598-1] c 35 N84-22930

**METAL POWDER**  
Method of producing refractory bodies having controlled porosity Patent  
[NASA-CASE-LEW-10393-1] c 17 N71-15468  
Sealing member and combination thereof and method of producing said sealing member Patent  
[NASA-CASE-XMS-01625] c 15 N71-23022  
Shock tube powder dispersing apparatus Patent  
[NASA-CASE-XLE-04948] c 17 N71-24911  
Preparation of high purity copper fluoride  
[NASA-CASE-LEW-10794-1] c 06 N72-17093  
Production of metal powders  
[NASA-CASE-XLE-06461] c 17 N72-22530  
Apparatus for producing metal powders  
[NASA-CASE-XLE-06461-2] c 17 N72-28535  
Peen plating  
[NASA-CASE-GSC-11163-1] c 15 N73-32360  
Electrodes for solid state devices  
[NASA-CASE-NPO-15161-1] c 33 N84-16456  
Diamondlike flakes  
[NASA-CASE-LEW-13837-2] c 24 N84-22696

**METAL SHEETS**  
Light shield and infrared reflector for fatigue testing Patent  
[NASA-CASE-XLA-01782] c 14 N71-26136  
Method of making pressure tight seal for super alloy  
[NASA-CASE-LAR-10170-1] c 37 N74-11301  
Method of making an explosively welded scarf joint  
[NASA-CASE-LAR-11211-1] c 37 N75-12326  
Process for making sheets with parallel pores of uniform size  
[NASA-CASE-GSC-10984-1] c 37 N75-26371  
Apparatus for welding sheet material — butt joints  
[NASA-CASE-XMS-01330] c 37 N75-23736  
Method of bonding plasticized elastomer to metal and articles produced thereby  
[NASA-CASE-MFS-25181-1] c 27 N82-24340



- Curved cap corrugated sheet  
[NASA-CASE-LAR-12684-1] c 18 N84-33450
- METAL SHELLS**  
Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886
- METAL SPINNING**  
Spin forming tubular elbows Patent  
[NASA-CASE-XMF-01083] c 15 N71-22723
- METAL SPRAYING**  
Arc spray fabrication of metal matrix composite monolayer --- high temperature fiber-reinforced superalloy composites  
[NASA-CASE-LEW-13828-1] c 24 N84-15203  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670
- METAL STRIPS**  
Formed metal ribbon wrap Patent  
[NASA-CASE-XLE-00164] c 15 N70-36411  
Interconnection of solar cells Patent  
[NASA-CASE-XGS-01475] c 03 N71-11058  
Method of making tubes Patent  
[NASA-CASE-XGS-04175] c 15 N71-18579  
High speed shutter --- electrically actuated ribbon loop for shuttering optical or fluid passageways  
[NASA-CASE-ARC-10518-1] c 70 N74-21300
- METAL SURFACES**  
Condenser - Separator  
[NASA-CASE-XLA-08645] c 15 N69-21465  
Plating nickel on aluminum castings Patent  
[NASA-CASE-XNP-04148] c 17 N71-24830  
Process for applying black coating to metals Patent  
[NASA-CASE-XLA-06199] c 15 N71-24875  
Process for reducing secondary electron emission Patent  
[NASA-CASE-XNP-09469] c 24 N71-25555  
Method of forming ceramic to metal seal Patent  
[NASA-CASE-XNP-01263-2] c 15 N71-26312  
Temperature reducing coating for metals subject to flame exposure Patent  
[NASA-CASE-XLE-00035] c 33 N71-29151  
Thin film gauge --- for measuring convective heat transfer rates along test surfaces in wind tunnels  
[NASA-CASE-NPO-10617-1] c 35 N74-22095  
Surface finishing  
[NASA-CASE-MSC-12631-3] c 27 N81-14077  
Improved refractory coatings --- sputtered coatings on substrates that form stable nitrides  
[NASA-CASE-LEW-23169-2] c 26 N81-18209  
Method of cold welding using ion beam technology  
[NASA-CASE-LEW-12982-1] c 37 N81-19455  
Corrosion resistant thermal barrier coating --- protecting gas turbines and other engine parts  
[NASA-CASE-LEW-13088-1] c 26 N81-25188  
Coating with overlay metallic-cermet alloy systems  
[NASA-CASE-LEW-13639-2] c 26 N84-27855
- METAL VAPOR LASERS**  
High power metallic halide laser --- amplifying a copper chloride laser  
[NASA-CASE-NPO-14782-1] c 38 N82-28616  
Method and apparatus for convection control of metallic halide vapor density in a metallic halide laser  
[NASA-CASE-NPO-15021-1] c 36 N83-10417
- METAL VAPORS**  
Slug flow magnetohydrodynamic generator  
[NASA-CASE-XLE-02083] c 03 N69-39983  
Apparatus for making a metal slurry product Patent  
[NASA-CASE-XLE-00010] c 15 N70-33382  
Inert gas metallic vapor laser  
[NASA-CASE-NPO-13449-1] c 36 N75-32441  
Isotope separation using metallic vapor lasers  
[NASA-CASE-NPO-13550-1] c 36 N77-26477
- METAL WORKING**  
Electric arc welding Patent  
[NASA-CASE-XMF-00392] c 15 N70-34814  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114] c 15 N71-17650  
Protective device for machine and metalworking tools Patent  
[NASA-CASE-XLE-01092] c 15 N71-22797  
Portable milling tool Patent  
[NASA-CASE-XMF-03511] c 15 N71-22799  
Extrusion die for refractory metals Patent  
[NASA-CASE-XLE-06773] c 15 N71-23817  
Magnetomotive metal working device Patent  
[NASA-CASE-XMF-03783] c 15 N71-24833  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-3] c 15 N71-24865  
Insert facing tool --- manually operated cutting tool for forming studs in honeycomb material  
[NASA-CASE-MFS-21485-1] c 37 N74-25968  
Apparatus for forming dished ion thruster grids  
[NASA-CASE-LEW-11694-2] c 37 N76-14461
- Holding fixture for a hot stamping press  
[NASA-CASE-GSC-12619-1] c 37 N84-12491  
Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274
- METAL-METAL BONDING**  
Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443  
Honeycomb panel and method of making same Patent  
[NASA-CASE-XMF-01402] c 18 N71-21651  
Capillary flow weld-bonding  
[NASA-CASE-LAR-11726-1] c 37 N76-27568  
Method of cold welding using ion beam technology  
[NASA-CASE-LEW-12982-1] c 37 N81-19455  
Mechanical bonding of metal method  
[NASA-CASE-LEW-12941-1] c 26 N83-10170  
Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338
- METALLIC GLASSES**  
Glass compositions with a high modulus of elasticity --- nontoxic glass fibers  
[NASA-CASE-HQN-10274-1] c 27 N82-29451  
High modulus invert analog glass compositions containing beryllia  
[NASA-CASE-HQN-10931-2] c 27 N82-29452
- METALLIZING**  
Multilevel metallization method for fabricating a metal oxide semiconductor device  
[NASA-CASE-MFS-23541-1] c 78 N79-14906  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670  
Overlay metallic-cermet alloy coating systems  
[NASA-CASE-LEW-13639-1] c 26 N84-33555
- METALLOGRAPHY**  
Method for etching copper Patent  
[NASA-CASE-XGS-06306] c 17 N71-16044
- METALLOSILOXANE POLYMER**  
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids  
[NASA-CASE-MFS-22411-1] c 37 N74-21058
- METALLURGY**  
Induction furnace with perforated tungsten foil shielding Patent  
[NASA-CASE-XLE-04026] c 14 N71-23267  
Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229
- METALS**  
Transpiration cooled turbine blade manufactured from wires Patent  
[NASA-CASE-XLE-00020] c 15 N70-33226  
Self-lubricating fluoride metal composite materials Patent  
[NASA-CASE-XLE-08511] c 18 N71-23710  
Convoluting device for forming convolutions and the like Patent  
[NASA-CASE-XNP-05297] c 15 N71-23811  
Forming tool for ribbon or wire  
[NASA-CASE-XLA-05966] c 15 N72-12408  
Peen plating  
[NASA-CASE-GSC-11163-1] c 15 N73-32360  
Glass-to-metal seals comprising relatively high expansion metals  
[NASA-CASE-LEW-10698-1] c 37 N74-21063  
Scanning nozzle plating system --- for etching or plating metals on substrates without masking  
[NASA-CASE-NPO-11758-1] c 31 N74-23065  
Production of pure metals  
[NASA-CASE-LEW-10906-1] c 25 N74-30502  
Thermocouple tape --- developed from thermoelectrically different metals  
[NASA-CASE-LEW-11072-2] c 35 N76-15434  
Method of forming shrink-fit compression seal  
[NASA-CASE-LAR-11563-1] c 37 N77-23482  
Solar cells having integral collector grids  
[NASA-CASE-LEW-12819-1] c 44 N79-11467  
Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275  
Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274  
Device and method for frictionally testing materials for ignitability  
[NASA-CASE-MSC-20622-1] c 14 N84-22596  
Metal phthalocyanine polymers  
[NASA-CASE-ARC-11405-1] c 27 N84-27884
- METASTABLE STATE**  
Stabilization of He2(a 3 Sigma u+) molecules in liquid helium by optical pumping for vacuum UV laser 6  
[NASA-CASE-NPO-13993-1] c 72 N79-13826
- METEORITE COLLISIONS**  
Pressurized panel  
[NASA-CASE-XLA-08916-2] c 14 N73-28487  
Method of and device for determining the characteristics and flux distribution of micrometeorites --- scanning puncture holes in sheet material with photoelectric cell  
[NASA-CASE-NPO-12127-1] c 91 N74-13130
- METEORITES**  
Method of making pressurized panel Patent  
[NASA-CASE-XLA-08916] c 15 N71-29018
- METEORITIC DAMAGE**  
Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent  
[NASA-CASE-XLE-01248] c 14 N71-10797
- METEOROID HAZARDS**  
Meteoroid impact position locator aid for manned space station  
[NASA-CASE-LAR-10629-1] c 35 N75-33367
- METEOROID PROTECTION**  
Aerodynamic protection for space flight vehicles Patent  
[NASA-CASE-XNP-02507] c 31 N71-17679
- METEOROLIDS**  
Apparatus for photographing meteors  
[NASA-CASE-LAR-10226-1] c 14 N73-19419  
Meteoroid capture cell construction  
[NASA-CASE-MSC-12423-1] c 91 N76-30131
- METEOROLOGICAL BALLOONS**  
Meteorological balloon Patent  
[NASA-CASE-XMF-04163] c 02 N71-23007  
Thin film strain transducer --- in-flight monitoring of balloon film strain  
[US-PATENT-APPL-SN-526770] c 35 N84-12448
- METHANATION**  
Fluidized bed gasification of biomass to methane  
[NASA-CASE-NPO-15903-1] c 44 N84-12635
- METHANE**  
Gas lubricant compositions Patent  
[NASA-CASE-XLE-00353] c 18 N70-39897  
Toughening reinforced epoxy composites with brominated polymeric additives  
[NASA-CASE-ARC-11427-1] c 24 N83-25791  
Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137  
Fluidized bed gasification of biomass to methane  
[NASA-CASE-NPO-15903-1] c 44 N84-12635  
Amine terminated bisaspartimides, process for preparation thereof, and polymers thereof  
[NASA-CASE-ARC-11421-1] c 27 N84-16340
- METHYL ALCOHOLS**  
Combustion engine system  
[NASA-CASE-NPO-14565-2] c 25 N83-19826  
Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15767-1] c 23 N84-16255
- METHYL CHLOROSILANES**  
Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811
- METHYL COMPOUNDS**  
Polymers of phosphonylmethyl-2,4- and -2,6-diamino benzenes and the like  
[NASA-CASE-ARC-11506-1] c 27 N84-12313
- METHYLENE**  
Carboranyl methylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750
- MICHELSON INTERFEROMETERS**  
Interferometer direction sensor Patent  
[NASA-CASE-NPO-10320] c 14 N71-17655  
Interferometer servo system Patent  
[NASA-CASE-NPO-10300] c 14 N71-17662  
Multispectral imaging system  
[NASA-CASE-MSC-12404-1] c 23 N73-13661  
Interferometer mirror tilt correcting system  
[NASA-CASE-NPO-13687-1] c 35 N78-18391
- MICROANALYSIS**  
Plural output optometric sample cell and analysis system  
[NASA-CASE-NPO-10233-1] c 74 N78-33913
- MICROBALANCES**  
Null-type vacuum microbalance Patent  
[NASA-CASE-XAC-00472] c 15 N70-40180  
Microbalance --- for measuring particle mass  
[NASA-CASE-MSC-11242] c 35 N78-17358
- MICROBALLOONS**  
Method of forming frozen spheres in a force-free drop tower  
[NASA-CASE-NPO-14845-1] c 27 N82-28442
- MICROBIOLOGY**  
Variable angle tube holder  
[NASA-CASE-LAR-10507-1] c 11 N72-25284  
Apparatus for microbiological sampling --- including automatic swabbing  
[NASA-CASE-LAR-11069-1] c 35 N75-12272  
Automatic inoculating apparatus --- includes movable carriage, drive motor, and swabbing motor  
[NASA-CASE-LAR-11074-1] c 51 N75-13502  
Automatic microbial transfer device  
[NASA-CASE-LAR-11354-1] c 35 N75-27330  
Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794

- Electrochemical detection device --- for use in microbiology  
[NASA-CASE-LAR-11922-1] c 25 N79-24073
- Indirect microbial detection  
[NASA-CASE-LAR-12520-1] c 51 N81-28698
- MICROCHANNELS**  
Low intensity X-ray and gamma-ray spectrometer  
[NASA-CASE-GSC-12587-1] c 35 N82-32659
- MICROCRACKS**  
System for detecting substructure microfractures and method therefore  
[NASA-CASE-NPO-14192-1] c 39 N80-10507
- Laser surface fusion of plasma sprayed ceramic turbine seals  
[NASA-CASE-LEW-13269-1] c 18 N83-20996
- MICROELECTRONICS**  
Apparatus and method for separating a semiconductor wafer Patent  
[NASA-CASE-ERC-10138] c 26 N71-14354
- Vibrophonocardiograph Patent  
[NASA-CASE-XFR-07172] c 05 N71-27234
- Microelectronic module package Patent  
[NASA-CASE-XMS-02182] c 10 N71-28783
- Method of coating through-holes Patent  
[NASA-CASE-XMF-05999] c 15 N71-29032
- Microcircuit negative cutter  
[NASA-CASE-XLA-09843] c 15 N72-27485
- Screened circuit capacitors  
[NASA-CASE-LAR-10294-1] c 26 N72-28762
- Active tuned circuit  
[NASA-CASE-GSC-11340-1] c 10 N72-33230
- Automatic visual inspection system for microelectronics  
[NASA-CASE-NPO-13282] c 38 N78-17396
- Method and apparatus for fabricating improved solar cell modules  
[NASA-CASE-NPO-14416-1] c 44 N81-14389
- Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709
- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-15670-1] c 33 N82-33634
- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884
- MICROFIBERS**  
Small conductive particle sensor --- microfiber size determination  
[NASA-CASE-LAR-12552-1] c 35 N82-11431
- MICROFILMS**  
Apparatus for inspecting microfilm Patent  
[NASA-CASE-MFS-20240] c 14 N71-26788
- MICROINSTRUMENTATION**  
Apparatus for handling micron size range particulate material  
[NASA-CASE-NPO-10151] c 37 N78-17386
- MICROMETEORITES**  
Method of and device for determining the characteristics and flux distribution of micrometeorites --- scanning puncture holes in sheet material with photoelectric cell  
[NASA-CASE-NPO-12127-1] c 91 N74-13130
- Micrometeoroid velocity and trajectory analyzer  
[NASA-CASE-GSC-11892-1] c 35 N76-15433
- MICROMETEORIODS**  
Micrometeoroid velocity measuring device Patent  
[NASA-CASE-XLA-00495] c 14 N70-41332
- Force transducer Patent  
[NASA-CASE-XAC-01101] c 14 N70-41957
- Pressurized cell micrometeoroid detector Patent  
[NASA-CASE-XLA-00936] c 14 N71-14996
- Detector panels-micrometeoroid impact Patent  
[NASA-CASE-XLA-05906] c 31 N71-18221
- Rotary bead dropper and selector for testing micrometeorite detectors Patent  
[NASA-CASE-XGS-03304] c 09 N71-22988
- Micrometeoroid penetration measuring device Patent  
[NASA-CASE-XLA-00941] c 14 N71-23240
- Fabric for micrometeoroid protection garment Patent  
[NASA-CASE-MSC-12109] c 18 N71-26285
- Micrometeoroid analyzer  
[NASA-CASE-ARC-10443-1] c 14 N73-20477
- Meteoroid detector  
[NASA-CASE-LAR-10483-1] c 14 N73-32327
- Deployable pressurized cell structure for a micrometeoroid detector  
[NASA-CASE-LAR-10295-1] c 35 N74-21062
- Semiconductor projectile impact detector  
[NASA-CASE-MFS-23008-1] c 35 N78-18390
- MICROMETERS**  
Apparatus for handling micron size range particulate material  
[NASA-CASE-NPO-10151] c 37 N78-17386
- MICROMINIATURIZATION**  
Compensating radiometer  
[NASA-CASE-XLA-04556] c 14 N69-27484
- MICROORGANISMS**  
Bacteriostatic conformal coating and methods of application Patent  
[NASA-CASE-GSC-10007] c 18 N71-16046
- Vacuum probe surface sampler  
[NASA-CASE-LAR-10623-1] c 14 N73-30395
- Measurement of gas production of microorganisms --- using pressure sensors  
[NASA-CASE-LAR-11326-1] c 35 N75-33368
- Biocontamination and particulate detection system  
[NASA-CASE-NPO-13953-1] c 35 N79-28527
- Indirect microbial detection  
[NASA-CASE-LAR-12520-1] c 51 N81-28698
- Apparatus and process for microbial detection and enumeration  
[NASA-CASE-LAR-12709-1] c 35 N82-28604
- Production of butanol by fermentation in the presence of co-culture of clostridium  
[NASA-CASE-NPO-16203-1] c 44 N83-29806
- MICROPARTICLES**  
Micropacked column for a chromatographic system  
[NASA-CASE-XNP-04816] c 06 N69-39936
- Powder fed sheared dispersal particle generator  
[NASA-CASE-LAR-12785-1] c 37 N84-16561
- MICROPHONES**  
Audio signal processor Patent  
[NASA-CASE-MSC-12223-1] c 07 N71-26181
- Vibrophonocardiograph Patent  
[NASA-CASE-XFR-07172] c 05 N71-27234
- Wind tunnel microphone structure Patent  
[NASA-CASE-XNP-00250] c 11 N71-28779
- High-temperature microphone system --- for measuring pressure fluctuations in gases at high temperature  
[NASA-CASE-LAR-12375-1] c 32 N79-24203
- Adapter for mounting a microphone flush with the external surface of the skin of a pressurized aircraft  
[NASA-CASE-FRC-11072-1] c 05 N83-27975
- Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-16027-1] c 33 N83-29595
- MICROPROCESSORS**  
Microcomputerized electric field meter diagnostic and calibration system  
[NASA-CASE-KSC-11035-1] c 35 N78-28411
- Automatic multi-banking of memory for microprocessors  
[NASA-CASE-NPO-15295-1] c 60 N82-11785
- MICROSCOPES**  
Absolute focus lock for microscopes  
[NASA-CASE-LAR-10184] c 14 N72-22445
- Hand-held photomicroscope  
[NASA-CASE-ARC-10468-1] c 14 N73-33361
- MICROSTRIP TRANSMISSION LINES**  
Thin conformal antenna array for microwave power conversions  
[NASA-CASE-NPO-13886-1] c 32 N78-24391
- Multiple band circularly polarized microstrip antenna  
[NASA-CASE-MSC-18334-1] c 32 N80-32604
- Cavity-backed, micro-strip dipole antenna array  
[NASA-CASE-MSC-18606-1] c 32 N82-11336
- MICROSTRUCTURE**  
Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent  
[NASA-CASE-XLE-03940] c 18 N71-26153
- Refractory metal base alloy composites  
[NASA-CASE-XLE-03940-2] c 17 N72-28536
- Diffusion welding --- heat treatment of nickel alloys following single step vacuum welding process  
[NASA-CASE-LEW-11388-2] c 37 N74-21055
- Method of determining bond quality of power transistors attached to substrates --- X ray inspection of junction microstructure  
[NASA-CASE-MFS-21931-1] c 37 N75-26372
- Preparation of monotelectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown  
[NASA-CASE-MFS-23816-1] c 26 N80-23419
- Method of making an ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095
- MICROTHRUST**  
Annular slit colloid thruster Patent  
[NASA-CASE-GSC-10709-1] c 28 N71-25213
- Heated porous plug microthruster  
[NASA-CASE-GSC-10640-1] c 28 N72-18766
- MICROWAVE AMPLIFIERS**  
Temperature-compensating means for cavity resonator of amplifier Patent  
[NASA-CASE-XNP-00449] c 14 N70-35220
- Resonant-isolator for maser amplifier  
[NASA-CASE-NPO-15201-1] c 36 N83-35350
- MICROWAVE ANTENNAS**  
Microwave power receiving antenna Patent  
[NASA-CASE-MFS-20333] c 09 N71-13486
- Low noise single aperture multimode monopulse antenna feed system Patent  
[NASA-CASE-XNP-01735] c 07 N71-22750
- Omnidirectional microwave spacecraft antenna Patent  
[NASA-CASE-XLA-03114] c 09 N71-22888
- Validation device for spacecraft checkout equipment Patent  
[NASA-CASE-XKS-10543] c 07 N71-26292
- Multi-purpose antenna employing dish reflector with plural coaxial horn feeds  
[NASA-CASE-NPO-11264] c 07 N72-25174
- Omnidirectional slot antenna for mounting on cylindrical space vehicle  
[NASA-CASE-LAR-10163-1] c 09 N72-25247
- Multiple reflection conical microwave antenna  
[NASA-CASE-NPO-11661] c 07 N73-14130
- Thin conformal antenna array for microwave power conversions  
[NASA-CASE-NPO-13886-1] c 32 N78-24391
- Cavity-backed, micro-strip dipole antenna array  
[NASA-CASE-MSC-18606-1] c 32 N82-11336
- MICROWAVE CIRCUITS**  
Quasi-optical microwave component Patent  
[NASA-CASE-ERC-10011] c 07 N71-29065
- Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348
- MICROWAVE COUPLING**  
Indexing microwave switch Patent  
[NASA-CASE-XNP-06507] c 09 N71-23548
- MICROWAVE EQUIPMENT**  
Array phasing device Patent  
[NASA-CASE-ERC-10046] c 10 N71-18722
- Broadband microwave waveguide window Patent  
[NASA-CASE-XNP-08880] c 09 N71-24808
- Dual frequency microwave reflex feed  
[NASA-CASE-NPO-13091-1] c 09 N73-12214
- Resonant waveguide stark cell --- using microwave spectrometers  
[NASA-CASE-LAR-11352-1] c 33 N75-26245
- Refrigerated coaxial coupling --- for microwave equipment  
[NASA-CASE-NPO-13504-1] c 33 N75-30430
- Microwave dichroic plate  
[NASA-CASE-GSC-12171-1] c 33 N79-28416
- Microwave field effect transistor  
[NASA-CASE-GSC-12442-1] c 33 N82-20398
- MICROWAVE FILTERS**  
High power microwave power divider Patent  
[NASA-CASE-NPO-11031] c 07 N71-33606
- High-Q bandpass resonators utilizing bandstop resonator pairs  
[NASA-CASE-GSC-10990-1] c 09 N73-26195
- MICROWAVE FREQUENCIES**  
Varactor high level mixer  
[NASA-CASE-XGS-02171] c 09 N69-24324
- Voltage tunable Gunn-type microwave generator Patent  
[NASA-CASE-XER-07894] c 09 N71-18721
- Composite antenna feed  
[NASA-CASE-GSC-11046-1] c 07 N73-28013
- MICROWAVE OSCILLATORS**  
Magnetically actuated tuning method for Gunn oscillators  
[NASA-CASE-NPO-12106] c 09 N73-15235
- Electron beam controller --- using magnetic field to refocus spent electron beam in microwave oscillator tube  
[NASA-CASE-LEW-11617-1] c 33 N74-10195
- MICROWAVE RADIOMETERS**  
Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774
- Electromagnetic power absorber  
[NASA-CASE-NPO-13830-1] c 32 N80-14281
- Microwave limb sounder --- measuring trace gases in the upper atmosphere  
[NASA-CASE-NPO-14544-1] c 46 N82-12685
- CAT altitude avoidance system  
[NASA-CASE-NPO-15351-1] c 06 N83-10040
- System for indicating fuel-efficient aircraft altitude  
[NASA-CASE-NPO-15351-2] c 06 N84-34443
- MICROWAVE REFLECTOMETERS**  
Reflectometer for receiver input impedance match measurement Patent  
[NASA-CASE-XNP-10843] c 07 N71-11267
- Microwave flaw detector Patent  
[NASA-CASE-ARC-10009-1] c 15 N71-17822
- MICROWAVE RESONANCE**  
Dual resonant cavity absorption cell Patent  
[NASA-CASE-LAR-10305] c 14 N71-26137
- MICROWAVE SWITCHING**  
Gyrator type circuit Patent  
[NASA-CASE-XAC-10608-1] c 09 N71-12517
- Microwave switching power divider --- antenna feeds  
[NASA-CASE-GSC-12420-1] c 33 N82-16340

## MICROWAVE TRANSMISSION

- Frequency translating phase conjugation circuit for active retrodirective antenna array — microwave transmission  
[NASA-CASE-NPO-14538-1] c 32 N81-14185
- Waveguide cooling system  
[NASA-CASE-NPO-15401-1] c 32 N83-27085

## MICROWAVE TUBES

- Electrostatic collector for charged particles  
[NASA-CASE-LEW-11192-1] c 09 N73-13208

## MICROWAVES

- Parametric microwave noise generator. Patent  
[NASA-CASE-XER-11019-1] c 09 N71-23598
- Method and apparatus for optical modulating a light signal. Patent  
[NASA-CASE-GSC-10216-1] c 23 N71-26722
- Waveguide mixer  
[NASA-CASE-ERC-10179-1] c 07 N72-20141
- Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver  
[NASA-CASE-MFS-21470-1] c 44 N74-19870
- Wide power range microwave feedback controller  
[NASA-CASE-GSC-12146-1] c 33 N78-32340
- Microwave power transmission beam safety system  
[NASA-CASE-NPO-14224-1] c 33 N80-18287
- Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053
- Doppler radar having phase modulation of both transmitted and reflected return signals  
[NASA-CASE-MSC-18675-1] c 32 N84-22820

## MIDAIR COLLISIONS

- Apparatus for aiding a pilot in avoiding a midair collision between aircraft  
[NASA-CASE-LAR-10717-1] c 21 N73-30641

## MILLIMETER WAVES

- Millimeter wave antenna system. Patent Application  
[NASA-CASE-GSC-10949-1] c 07 N71-28965
- Millimeter wave pumped parametric amplifier  
[NASA-CASE-GSC-11617-1] c 33 N74-32660

## MILLING (MACHINING)

- Apparatus for machining geometric cones. Patent.  
[NASA-CASE-XMS-04292] c 15 N71-22722
- Method and tool for machining a transverse slot about a bore  
[NASA-CASE-LAR-11855-1] c 37 N81-14319
- Method for milling and drilling glass  
[NASA-CASE-GSC-12636-1] c 31 N83-27058

## MILLING MACHINES

- Electro-optical alignment control system. Patent  
[NASA-CASE-XMF-00908] c 14 N70-40238
- Portable milling tool. Patent  
[NASA-CASE-XMF-03511-1] c 15 N71-22799
- Grinding arrangement for ball nose milling cutters  
[NASA-CASE-LAR-10450-1] c 37 N74-27905

## MINERAL DEPOSITS

- Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 31 N78-24387
- Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 43 N81-26509

## MINERAL METABOLISM

- Method and system for in vivo measurement of bone tissue using a two level energy source  
[NASA-CASE-MSC-14276-1] c 52 N77-14737

## MINIATURE ELECTRONIC EQUIPMENT

- Miniature stress transducer. Patent  
[NASA-CASE-XNP-02883] c 14 N71-21091
- Transducer circuit and catheter transducer. Patent  
[NASA-CASE-ARC-10132-1] c 09 N71-24597
- Solid state television camera system. Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612
- Miniature ingestible telemeter devices to measure deep-body temperature  
[NASA-CASE-ARC-10583-1] c 52 N76-29894
- Miniature biaxial strain transducer  
[NASA-CASE-LAR-11648-1] c 35 N77-14407

## MINIATURIZATION

- Miniature vibration isolator. Patent  
[NASA-CASE-XLA-01019] c 15 N70-40156
- Counter and shift register. Patent  
[NASA-CASE-XNP-01753] c 08 N71-22897
- Miniature carbon dioxide sensor and methods  
[NASA-CASE-MSC-13332-1] c 14 N72-21408
- Magnetometer with a miniature transducer and automatic scanning  
[NASA-CASE-LAR-11617-2] c 35 N78-32397
- Miniature cyclotron resonance ion source using small permanent magnet  
[NASA-CASE-NPO-14324-1] c 72 N80-27163
- Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098
- Miniature electro-optical air flow sensor  
[NASA-CASE-LAR-13065-1] c 74 N83-25539

## MINING

- Underground mineral extraction.  
[NASA-CASE-NPO-14140-1] c 31 N78-24387

- Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423
- Coal-shale interface detector  
[NASA-CASE-MFS-23720-1] c 43 N80-23711
- Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 43 N81-26509
- High production shuttle car system for coal mines  
[NASA-CASE-NPO-15949-1] c 37 N83-20155
- Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768

## MINORITY CARRIERS

- Method of increasing minority carrier lifetime in silicon web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888

## MIRRORS

- Pneumatic mirror support system  
[NASA-CASE-XLA-03271] c 11 N69-24321
- Electromagnetic mirror drive system  
[NASA-CASE-XLA-03724] c 14 N69-27461
- Interferometer servo system. Patent  
[NASA-CASE-NPO-10300] c 14 N71-17662
- Method and apparatus for stabilizing a gaseous optical maser. Patent  
[NASA-CASE-XGS-03644] c 16 N71-18614
- Optical mirror apparatus. Patent  
[NASA-CASE-ERC-10001] c 23 N71-24868
- Adjustable mount for a trihedral mirror. Patent  
[NASA-CASE-NPO-08907] c 23 N71-29123
- Optical range finder having nonoverlapping complete images  
[NASA-CASE-MSC-12105-1] c 14 N72-21409
- Optical system support apparatus  
[NASA-CASE-XER-07896-2] c 23 N72-22673
- Strain gauge ambiguity sensor for segmented mirror active optical system  
[NASA-CASE-MFS-20508-1] c 35 N75-12273
- Method for manufacturing mirrors in zero gravity environment  
[NASA-CASE-MSC-12611-1] c 12 N76-15189
- Method of and means for testing a glancing-incidence mirror system of an X-ray telescope  
[NASA-CASE-MFS-22409-2] c 74 N78-15880
- Interferometer mirror tilt correcting system  
[NASA-CASE-NPO-13687-1] c 35 N78-18391
- Anastigmatic three-mirror telescope  
[NASA-CASE-MFS-23675-1] c 89 N79-10969
- Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541
- X-ray imaging mirror system and method of producing the same  
[NASA-CASE-NPO-15828-1] c 74 N83-30222
- Spectral slicing X-ray telescope with variable magnification  
[NASA-CASE-MFS-25942-1] c 89 N84-17084
- Dual aperture multispectral Schmidt objective  
[NASA-CASE-GSC-12756-1] c 74 N84-23248

## MIS (SEMICONDUCTORS)

- Photocapacitive image converter  
[NASA-CASE-LAR-12513-1] c 44 N82-32841

## MISSILE CONTROL

- Turnstile slot antenna  
[NASA-CASE-GSC-11428-1] c 32 N74-20864

## MISSILE LAUNCHERS

- Missile launch release system. Patent  
[NASA-CASE-XMF-03198] c 30 N70-40353
- Optical monitor panel. Patent  
[NASA-CASE-XKS-03509] c 14 N71-23175
- Controlled release device. Patent  
[NASA-CASE-XKS-03338] c 15 N71-24043

## MISSILE STRUCTURES

- Missile rolling tail brake torque system — simulating bearing friction on canard controlled missiles  
[NASA-CASE-LAR-12751-1] c 15 N84-18231

## MISSILES

- Hypersonic airbreathing missile  
[NASA-CASE-LAR-12264-1] c 15 N78-32168
- Fire protection covering for small diameter missiles  
[NASA-CASE-ARC-11104-1] c 15 N79-26100

## MITOSIS

- Process for control of cell division  
[NASA-CASE-LAR-10773-3] c 51 N77-25769

## MIXERS

- Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067

## MIXING CIRCUITS

- Varactor high level mixer  
[NASA-CASE-XGS-02171] c 09 N69-24324
- Waveguide mixer  
[NASA-CASE-ERC-10179] c 07 N72-20141

## MIXTURES

- Low gravity phase separator  
[NASA-CASE-MSC-14773-1] c 35 N78-12390

## MOBILITY

- Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251

- Mobile sampler for use in acquiring samples of terrestrial atmospheric gases  
[NASA-CASE-NPO-15220-1] c 45 N83-25217

## MODE TRANSFORMERS

- Transient-compensated SCR inverter  
[NASA-CASE-XLA-08507] c 09 N69-39984
- Dual waveguide mode source having control means for adjusting the relative amplitude of two modes. Patent  
[NASA-CASE-XNP-03134] c 07 N71-10676
- Direct current transformer  
[NASA-CASE-MFS-23659-1] c 33 N79-17133

## MODEMS

- Charge storage diode modulators and demodulators  
[NASA-CASE-NPO-10189-1] c 33 N77-21314

## MODES (STANDING WAVES)

- Acoustic levitation methods and apparatus  
[NASA-CASE-NPO-15562-1] c 71 N82-27086

## MODULATION

- Demodulator for carrier transducers  
[NASA-CASE-NUC-10107-1] c 33 N74-17930
- Faraday rotation measurement method and apparatus  
[NASA-CASE-NPO-14839-1] c 35 N82-15381
- Air modulation apparatus  
[NASA-CASE-LEW-13524-1] c 07 N84-33410

## MODULATORS

- Retrodirective optical system  
[NASA-CASE-XGS-04480] c 16 N69-27491
- Retrodirective modulator. Patent  
[NASA-CASE-GSC-10062] c 14 N71-15605
- Laser calibrator. Patent  
[NASA-CASE-XLA-03410] c 16 N71-25914
- Full wave modulator-demodulator amplifier apparatus — for generating rectified output signal  
[NASA-CASE-FRC-10072-1] c 33 N74-14939
- Charge storage diode modulators and demodulators  
[NASA-CASE-NPO-10189-1] c 33 N77-21314
- Coherently pulsed laser source  
[NASA-CASE-NPO-15111-1] c 36 N82-29589
- Navigation system and method  
[NASA-CASE-GSC-12508-1] c 04 N84-22546
- Solar energy modulator  
[NASA-CASE-NPO-15388-1] c 44 N84-28203

## MODULES

- Modular encoder  
[NASA-CASE-NPO-10629] c 08 N72-18184
- Solar cell module assembly jig  
[NASA-CASE-XGS-00829-1] c 44 N79-19447
- Method of fabricating a photovoltaic module of a substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550

## MODULUS OF ELASTICITY

- Glass compositions with a high modulus of elasticity — nontoxic glass fibers  
[NASA-CASE-HQN-10274-1] c 27 N82-29451
- High modulus invert analog glass compositions containing beryllia  
[NASA-CASE-HQN-10931-2] c 27 N82-29452
- Non-toxic invert analog glass compositions of high modulus  
[NASA-CASE-HQN-10328-2] c 27 N82-29454
- High modulus rare earth and beryllium containing silicate glass compositions — for glass reinforcing fibers  
[NASA-CASE-HQN-10595-1] c 27 N82-29455

## MOISTURE

- Gas purged dry box glove. Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080

## MOISTURE CONTENT

- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-1] c 35 N82-25484
- Moisture content and gas sampling device — to test hermetically sealed electronic equipment  
[NASA-CASE-MSC-18866-1] c 35 N82-26634

## TRACE WATER SENSOR

- [NASA-CASE-NPO-15722-1] c 35 N83-20084
- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-2] c 35 N84-22935

## MOISTURE METERS

- Method of evaluating moisture barrier properties of encapsulating materials. Patent  
[NASA-CASE-NPO-10051] c 18 N71-24934
- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-1] c 35 N82-25484
- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-2] c 35 N84-22935

## MOISTURE RESISTANCE

- Process for improving moisture resistance of epoxy resins by addition of chromium ions  
[NASA-CASE-LAR-13226-1] c 27 N84-20700

## MOLDING MATERIALS

- Method for molding compounds. Patent  
[NASA-CASE-XLA-01091] c 15 N71-10672

- Method of making a molded connector Patent  
[NASA-CASE-XMF-03498] c 15 N71-15986
- Hydraulic casting of liquid polymers Patent  
[NASA-CASE-XNP-07659] c 06 N71-22975
- Hydroforming techniques using epoxy molds Patent  
[NASA-CASE-XLE-05641-1] c 15 N71-26346
- Molding process for imidazopyrrolone polymers  
[NASA-CASE-LAR-10547-1] c 31 N74-13177
- Evacuated displacement compression molding  
[NASA-CASE-LAR-10782-1] c 31 N74-14133
- Molded composite pyrogen igniter for rocket motors — solid propellant ignition  
[NASA-CASE-LAR-12018-1] c 20 N78-24275
- Method of making a rocket nozzle  
[NASA-CASE-XMF-06884-1] c 20 N79-21123

**MOLDS**

- Apparatus for making curved reflectors Patent  
[NASA-CASE-XLE-08917-2] c 15 N71-24836
- Technique of duplicating fragile core  
[NASA-CASE-XLA-07829] c 15 N72-16329
- Evacuated displacement compression molding  
[NASA-CASE-LAR-10782-1] c 31 N74-14133
- Molding apparatus — for thermosetting plastic compositions  
[NASA-CASE-LAR-10489-2] c 31 N74-32920
- Evacuated, displacement compression mold — of tubular bodies from thermosetting plastics  
[NASA-CASE-LAR-10782-2] c 31 N75-13111
- Method of making an apertured casting — using duplicate mold  
[NASA-CASE-LEW-11169-1] c 37 N76-23570

**MOLECULAR BEAMS**

- Molecular beam velocity selector Patent  
[NASA-CASE-XLE-01533] c 11 N71-10777
- Sputtering holes with ion beamlets  
[NASA-CASE-LEW-11646-1] c 20 N74-31269

**MOLECULAR CHAINS**

- Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104

**MOLECULAR GASES**

- Compact hydrogenator  
[NASA-CASE-NPO-11682-1] c 35 N74-15127

**MOLECULAR PUMPS**

- Omni-directional anisotropic molecular trap Patent  
[NASA-CASE-XGS-00783] c 30 N71-17788
- Rotating shaft seal Patent  
[NASA-CASE-XNP-02791] c 15 N71-26294

**MOLECULAR RELAXATION**

- Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect  
[NASA-CASE-NPO-14657-1] c 74 N81-17887

**MOLECULAR ROTATION**

- Diatomic infrared gasdynamic laser — for producing different wavelengths  
[NASA-CASE-ARC-10370-1] c 36 N75-31426

**MOLECULAR SPECTRA**

- Correlation spectrometer having high resolution and multiplexing capability  
[NASA-CASE-NPO-15558-1] c 35 N84-34705

**MOLECULAR SPECTROSCOPY**

- Dual resonant cavity absorption cell Patent  
[NASA-CASE-LAR-10305] c 14 N71-26137

**MOLECULAR WEIGHT**

- Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532
- Melt-flow-toughness modified polyimide  
[NASA-CASE-LAR-13135-1] c 27 N84-34616

**MOLECULES**

- Stabilization of He2(a 3 Sigma u+) molecules in liquid helium by optical pumping for vacuum UV laser  
[NASA-CASE-NPO-13993-1] c 72 N79-13826

**MOLTEN SALT ELECTROLYTES**

- Combined electrolysis device and fuel cell and method of operation Patent  
[NASA-CASE-XLE-01645] c 03 N71-20904
- Zinc-halide battery with molten electrolyte  
[NASA-CASE-NPO-11961-1] c 44 N76-18643

**MOLTEN SALTS**

- Molten salt pyrolysis of latex — synthetic hydrocarbon fuel production using the Guayule shrub  
[NASA-CASE-NPO-14315-1] c 27 N81-17261

**MOLYBDENUM**

- Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12174-2] c 35 N79-14346

**MOLYBDENUM CARBIDES**

- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00302] c 15 N71-16077

**MOLYBDENUM DISULFIDES**

- Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-3] c 28 N81-14103

**MOMENTS OF INERTIA**

- Moment of inertia test fixture Patent  
[NASA-CASE-XGS-01023] c 14 N71-22992

**MOMENTUM**

- Attitude control and damping system for spacecraft Patent  
[NASA-CASE-XLA-02551] c 21 N71-21708
- Particle detection apparatus including a ballistic pendulum Patent  
[NASA-CASE-XMS-04201] c 14 N71-22990

**MONATOMIC GASES**

- Atomic hydrogen storage — cryotrapping and magnetic field strength  
[NASA-CASE-LEW-12081-2] c 28 N80-20402

**MONITORS**

- Leak detector Patent  
[NASA-CASE-LAR-10323-1] c 12 N71-17573
- Reduced bandwidth video communication system utilizing sampling techniques Patent  
[NASA-CASE-XNP-02791] c 07 N71-23026
- Optical monitor panel Patent  
[NASA-CASE-XKS-03509] c 14 N71-23175
- Peak polarity selector Patent  
[NASA-CASE-FRC-10010] c 10 N71-24862
- Ripple indicator  
[NASA-CASE-KSC-10162] c 09 N72-11225
- Droplet monitoring probe  
[NASA-CASE-NPO-10985] c 14 N73-20478
- Automatic lightning detection and photographic system  
[NASA-CASE-KSC-10728-1] c 14 N73-32319
- Method and apparatus for optically monitoring the angular position of a rotating mirror  
[NASA-CASE-GSC-11353-1] c 74 N74-21304
- Remote lightning monitor system  
[NASA-CASE-KSC-11031-1] c 33 N79-11315
- Apparatus including a plurality of spaced transformers for locating short circuits in cables  
[NASA-CASE-KSC-10899-1] c 33 N79-18193
- Indirect microbial detection  
[NASA-CASE-LAR-12520-1] c 51 N81-28698
- Scanning seismic intrusion detection method and apparatus — monitoring unwanted subterranean entry and departure  
[NASA-CASE-ARC-11317-1] c 35 N83-34272

**MONOCHROMATIC RADIATION**

- Continuous plasma light source  
[NASA-CASE-XNP-04167-2] c 25 N72-24753
- Laser extensometer  
[NASA-CASE-MFS-19259-1] c 36 N78-14380
- Multiprism collimator  
[NASA-CASE-GSC-12608-1] c 74 N83-10900

**MONOCHROMATORS**

- Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent  
[NASA-CASE-LAR-10180-1] c 06 N71-13461
- Color television system  
[NASA-CASE-MSC-12146-1] c 07 N72-17109

**MONOMERS**

- Pressure transducer — using a monomeric charge transfer complex sensor  
[NASA-CASE-NPO-11150] c 35 N78-17359
- Bifunctional monomers having terminal oxime and cyano or amidine groups  
[NASA-CASE-ARC-11253-3] c 27 N81-24256
- Cross-linked polyvinyl alcohol and method of making same  
[NASA-CASE-LEW-13101-2] c 23 N81-29160
- Preparation of crosslinked 1,2,4-oxadiazole polymer  
[NASA-CASE-ARC-11253-2] c 27 N82-24338
- Improved high temperature resistant polyimides  
[NASA-CASE-LEW-13864-1] c 27 N83-17715
- Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-1] c 27 N84-27885

**MONOPOLE ANTENNAS**

- Antenna system using parasitic elements and two driven elements at 90 deg angle fed 180 deg out of phase Patent  
[NASA-CASE-XLA-00414] c 07 N70-38200
- Flexible blade antenna Patent  
[NASA-CASE-MSC-12101] c 09 N71-18720

**MONOPROPELLANTS**

- Ignition system for monopropellant combustion devices Patent  
[NASA-CASE-XNP-00249] c 28 N70-38249
- Ignition means for monopropellant Patent  
[NASA-CASE-XNP-00876] c 28 N70-41311
- Low thrust monopropellant engine  
[NASA-CASE-GSC-12194-2] c 20 N82-18314

**MONOPULSE ANTENNAS**

- Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460

- Low noise single aperture multimode monopulse antenna feed system Patent  
[NASA-CASE-XNP-01735] c 07 N71-22750
- Electronic scanning of 2-channel monopulse patterns Patent  
[NASA-CASE-GSC-10299-1] c 09 N71-24804
- Switchable beamwidth monopulse method and system  
[NASA-CASE-GSC-11924-1] c 33 N78-27472

**MONOPULSE RADAR**

- Polarization diversity monopulse tracking receiver Patent  
[NASA-CASE-XGS-03501] c 09 N71-20864
- Monopulse tracking system Patent  
[NASA-CASE-XGS-01155] c 10 N71-21483

**MONOSTABLE MULTIVIBRATORS**

- Resettable monostable pulse generator Patent  
[NASA-CASE-GSC-11139] c 09 N71-27016
- Monostable multivibrator with complementary NOR gates Patent  
[NASA-CASE-MSC-13492-1] c 10 N71-28860

**MOSSBAUER EFFECT**

- Mossbauer spectrometer radiation detector  
[NASA-CASE-LAR-11155-1] c 35 N74-15091
- Method and apparatus for vibration analysis utilizing the Mossbauer effect  
[NASA-CASE-XMF-05882] c 35 N75-27329

**MOTION**

- Quick attach mechanism Patent  
[NASA-CASE-XFR-05421] c 15 N71-22994

**MOTION PICTURES**

- Real time moving scene holographic camera system  
[NASA-CASE-MFS-21087-1] c 35 N74-17153
- Real time, large volume, moving scene holographic camera system  
[NASA-CASE-MFS-22537-1] c 35 N75-27328

**MOTION SIMULATORS**

- Kinesthetic control simulator — for pilot training  
[NASA-CASE-LAR-10276-1] c 09 N75-15662
- Helmet weight simulator  
[NASA-CASE-LAR-12320-1] c 54 N81-27806

**MOTION STABILITY**

- Hydraulic drive mechanism Patent  
[NASA-CASE-XMS-03252] c 15 N71-10658

**MOTORS**

- Nonmagnetic thermal motor for a magnetometer  
[NASA-CASE-XAR-03786] c 09 N69-21313
- System for maintaining a motor at a predetermined speed utilizing digital feedback means Patent  
[NASA-CASE-XMF-06892] c 09 N71-24805
- Mechanical thermal motor  
[NASA-CASE-MFS-23062-1] c 37 N77-12402
- Redundant motor drive system  
[NASA-CASE-MFS-23777-1] c 37 N80-32716
- Reciprocating linear motor  
[NASA-CASE-GSC-12773-1] c 33 N83-12332

**MOUNTING**

- Thermobulb mount Patent  
[NASA-CASE-NPO-10158] c 33 N71-16356
- Mount for thermal control system Patent  
[NASA-CASE-NPO-10138] c 33 N71-16357
- Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02184] c 15 N71-20813
- Circuit board package with wedge shaped covers  
[NASA-CASE-MFS-21919-1] c 10 N73-25243
- Lubricated journal bearing  
[NASA-CASE-LEW-11076-3] c 37 N75-30562
- Translatory shock absorber for attitude sensors  
[NASA-CASE-MFS-22905-1] c 19 N76-22284
- Deformable bearing seat  
[NASA-CASE-LEW-12527-1] c 37 N77-32500
- Impact absorbing blade mounts for variable pitch blades  
[NASA-CASE-LEW-12313-1] c 37 N78-10468
- Attaching of strain gages to substrates  
[NASA-CASE-FRC-10093-1] c 35 N80-20560
- Adapter for mounting a microphone flush with the external surface of the skin of a pressurized aircraft  
[NASA-CASE-FRC-11072-1] c 05 N83-27975
- Inflatable device for installing strain gage bridges  
[NASA-CASE-FRC-11068-1] c 35 N84-12443
- Clamp-mount device  
[NASA-CASE-MFS-25510-1] c 37 N84-16560
- Model mount system for testing flutter  
[NASA-CASE-LAR-12950-1] c 09 N84-34448

**MOVING TARGET INDICATORS**

- Automatic vehicle location system  
[NASA-CASE-NPO-11850-1] c 32 N74-12912
- Interferometric locating system  
[NASA-CASE-NPO-14173-1] c 04 N80-32359

**MULTIBEAM ANTENNAS**

- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-2] c 32 N83-31918

**MULTICHANNEL COMMUNICATION**

- Tape guidance system and apparatus for the provision thereof Patent  
[NASA-CASE-XNP-09453] c 08 N71-19420
- Phase quadrature-plural channel data transmission system Patent  
[NASA-CASE-XAC-06302] c 08 N71-19763
- Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier [NASA-CASE-NPO-11593-1] c 07 N73-28012
- Miniature multichannel biotelemetry system  
[NASA-CASE-NPO-13065-1] c 52 N74-26625
- Medical subject monitoring systems --- multichannel monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757
- Multi-channel rotating optical interface for data transmission  
[NASA-CASE-NPO-14066-1] c 74 N79-34011

**MULTILAYER INSULATION**

- Sealing member and combination thereof and method of producing said sealing member Patent  
[NASA-CASE-XMS-01625] c 15 N71-23022
- Panelized high performance multilayer insulation Patent  
[NASA-CASE-MFS-14023] c 33 N71-25351
- Electrical apparatus for detection of thermal decomposition of insulation Patent  
[NASA-CASE-XMF-03968] c 14 N71-27186
- Method of making an insulation foil  
[NASA-CASE-LEW-11484-1] c 24 N75-33181
- Process for preparing high temperature polyimide film laminates  
[NASA-CASE-LAR-12742-1] c 24 N81-12174
- Multilayer thermal protection system  
[NASA-CASE-LAR-12620-1] c 24 N82-32417

**MULTIPACTOR DISCHARGES**

- High power RF coaxial switch  
[NASA-CASE-NPO-14229-1] c 33 N80-18285

**MULTIPATH TRANSMISSION**

- Anti-multipath digital signal detector  
[NASA-CASE-LAR-11827-1] c 32 N77-10392
- Large volume multiple-path nuclear pumped laser  
[NASA-CASE-LAR-12592-1] c 36 N82-13415

**MULTIPLE BEAM INTERVAL SCANNERS**

- Tracking antenna system Patent  
[NASA-CASE-GSC-10553-1] c 07 N71-19854
- Variable beamwidth antenna --- with multiple beam, variable feed system  
[NASA-CASE-GSC-11862-1] c 32 N76-18295

**MULTIPLE DOCKING ADAPTERS**

- Expanding center probe and drogue Patent  
[NASA-CASE-XMS-03613] c 31 N71-16346

**MULTIPLE OUTPUT PROGRAMS**

- Multi-computer multiple data path hardware exchange system  
[NASA-CASE-NPO-13422-1] c 60 N76-14818

**MULTIPLYING**

- Doppler frequency spread correction device for multiplex transmissions  
[NASA-CASE-XGS-02749] c 07 N69-39978
- Elimination of frequency shift in a multiplex communication system Patent  
[NASA-CASE-XNP-01306] c 07 N71-20814
- Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149
- Method and apparatus for data compression by a decreasing slope threshold test  
[NASA-CASE-NPO-10769] c 08 N72-11171
- Data multiplexer using tree switching configuration  
[NASA-CASE-NPO-11333] c 08 N72-22162
- Television multiplexing system  
[NASA-CASE-KSC-10654-1] c 07 N73-30115
- Asynchronous, multiplexing, single line transmission and recovery data system --- for satellite use  
[NASA-CASE-NPO-13321-1] c 32 N75-26195
- Correlation type phase detector --- with time correlation integrator for frequency multiplexed signals  
[NASA-CASE-GSC-11744-1] c 33 N75-26243
- System for producing chroma signals  
[NASA-CASE-MSC-14683-1] c 74 N77-18893
- Fiber optic multiplex optical transmission system  
[NASA-CASE-KSC-11047-1] c 74 N78-14889
- System for a displaying at a remote station data generated at a central station and for powering the remote station from the central station  
[NASA-CASE-GSC-12411-1] c 33 N81-14221
- Multifrequency broadband polarized horn antenna  
[NASA-CASE-NPO-14588-1] c 32 N81-25278
- High-speed multiplexing of keyboard data inputs  
[NASA-CASE-NPO-14554-1] c 60 N81-27814
- Multi-channel temperature measurement amplification system --- solar heating systems  
[NASA-CASE-MFS-23775-1] c 44 N82-16474
- Apparatus and method for tracking the fundamental frequency of an analog input signal  
[NASA-CASE-ARC-11367-1] c 33 N83-21238

- Integrating IR detector imaging systems  
[NASA-CASE-NPO-15805-1] c 74 N84-28590
- Correlation spectrometer having high resolution and multiplexing capability  
[NASA-CASE-NPO-15558-1] c 35 N84-34705

**MULTIPLIERS**

- Pulse-width modulation multiplier Patent  
[NASA-CASE-XER-09213] c 07 N71-12390
- Variable pulse width multiplier Patent  
[NASA-CASE-XLA-02850] c 09 N71-20447
- Capacitance multiplier and filter synthesizing network  
[NASA-CASE-NPO-11948-1] c 33 N74-32712
- Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter  
[NASA-CASE-LEW-12791-1] c 33 N78-32341

**MULTIPROCESSING (COMPUTERS)**

- Multicomputer communication system  
[NASA-CASE-NPO-15433-1] c 62 N83-20634

**MULTISPECTRAL BAND SCANNERS**

- Optical process for producing classification maps from multispectral data  
[NASA-CASE-MSC-14472-1] c 43 N77-10584
- Interactive color display for multispectral imagery using correlation clustering  
[NASA-CASE-MSC-16253-1] c 32 N79-20297
- Multispectral scanner optical system  
[NASA-CASE-MSC-18255-1] c 74 N80-33210
- Medical diagnosis system and method with multispectral imaging --- depth of burns and optical density of the skin  
[NASA-CASE-NPO-14402-1] c 52 N81-27783
- Dual aperture multispectral Schmidt objective  
[NASA-CASE-GSC-12756-1] c 74 N84-23248

**MULTISPECTRAL LINEAR ARRAYS**

- Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403
- Multispectral linear array multiband selection device  
[NASA-CASE-GSC-12911-1] c 35 N84-25016

**MULTISPECTRAL PHOTOGRAPHY**

- Multispectral imaging system  
[NASA-CASE-MSC-12404-1] c 23 N73-13661
- Optical process for producing classification maps from multispectral data  
[NASA-CASE-MSC-14472-1] c 43 N77-10584
- Multispectral imaging and analysis system --- using charge coupled devices and linear arrays  
[NASA-CASE-NPO-13691-1] c 43 N79-17288
- Interactive color display for multispectral imagery using correlation clustering  
[NASA-CASE-MSC-16253-1] c 32 N79-20297

**MULTISTAGE ROCKET VEHICLES**

- Recoverable rocket vehicle Patent  
[NASA-CASE-XMF-00389] c 31 N70-34176
- Steerable solid propellant rocket motor Patent  
[NASA-CASE-XNP-00234] c 28 N70-38645
- Multi-mission module Patent  
[NASA-CASE-XMF-01543] c 31 N71-17730
- Single action separation mechanism Patent  
[NASA-CASE-XLA-00188] c 15 N71-22874
- Lateral displacement system for separated rocket stages Patent  
[NASA-CASE-XLA-04804] c 31 N71-23008
- Frangible link  
[NASA-CASE-MSC-11849-1] c 15 N72-22488
- Three stage rocket vehicle with parallel staging  
[NASA-CASE-MFS-25878-1] c 18 N84-27787

**MULTIVIBRATORS**

- Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent  
[NASA-CASE-XGS-00381] c 09 N70-34819
- Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00458] c 09 N70-38604
- Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00131] c 09 N70-38995
- High efficiency multivibrator Patent  
[NASA-CASE-XAC-00942] c 10 N71-16042
- A dc-coupled noninverting one-shot Patent  
[NASA-CASE-XNP-09450] c 10 N71-18723
- Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent  
[NASA-CASE-ARC-10137-1] c 09 N71-28468
- Digital demodulator  
[NASA-CASE-LAR-12659-1] c 33 N82-26570

**MUSCLES**

- Subminiature insertable force transducer --- including a strain gage to measure forces in muscles  
[NASA-CASE-NPO-13423-1] c 33 N75-31329
- Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703

**MUSCULAR FUNCTION**

- Miniature muscle displacement transducer  
[NASA-CASE-NPO-13519-1] c 33 N76-19338
- Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072

**MUSCULOSKELETAL SYSTEM**

- Skeletal stressing method and apparatus Patent  
[NASA-CASE-ARC-10100-1] c 05 N71-24738

**MYOCARDIUM**

- Myocardium wall thickness transducer and measuring method  
[NASA-CASE-NPO-13644-1] c 52 N76-29895
- Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072

**MYOPIA**

- Visual accommodation trainer-tester  
[NASA-CASE-ARC-11426-1] c 09 N84-12193

**N****N-TYPE SEMICONDUCTORS**

- Complementary DMOS-VMOS integrated circuit structure  
[NASA-CASE-GSC-12190-1] c 33 N79-12321

**NACELLES**

- Inlet deflector for jet engines Patent  
[NASA-CASE-XLE-00388] c 28 N70-34788
- Nacelle afterbody for jet engines Patent  
[NASA-CASE-XLA-10450] c 28 N71-21493
- Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-2] c 07 N78-18066
- Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-3] c 07 N79-14096

**NASA PROGRAMS**

- Retractable environmental seal  
[NASA-CASE-MFS-23646-1] c 37 N79-22474

**NAVIGATION**

- Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098

**NAVIGATION AIDS**

- Magnetic heading reference  
[NASA-CASE-LAR-11387-1] c 04 N76-20114
- Ruler for making navigational computations  
[NASA-CASE-XNP-01458] c 04 N78-17031
- System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075
- Magnetic heading reference  
[NASA-CASE-LAR-12638-1] c 04 N84-14132
- Low-frequency radio navigation system  
[NASA-CASE-NPO-15264-1] c 04 N84-27713

**NAVIGATION INSTRUMENTS**

- Sun angle calculator  
[NASA-CASE-MSC-12617-1] c 35 N76-29552

**NAVIGATION SATELLITES**

- Satellite aided vehicle avoidance system Patent  
[NASA-CASE-ERC-10090] c 21 N71-24948

**NEAR INFRARED RADIATION**

- Collimator of multiple plates with axially aligned identical random arrays of apertures  
[NASA-CASE-MFS-20546-2] c 14 N73-30389

**NEGATIVE FEEDBACK**

- Complementary regenerative switch Patent  
[NASA-CASE-XGS-02751] c 09 N71-23015
- Solid-state current transformer  
[NASA-CASE-MFS-22560-1] c 33 N77-14335

**NEGATIVE RESISTANCE CIRCUITS**

- General logic structure for custom LSI circuits  
[NASA-CASE-NPO-14410-2] c 33 N82-25440

**NEODYMIUM LASERS**

- Length controlled stabilized mode-lock Nd:YAG laser  
[NASA-CASE-GSC-11571-1] c 36 N77-25499

**NERVES**

- Implantable electrical device  
[NASA-CASE-GSC-12560-1] c 52 N82-29863

**NETWORK SYNTHESIS**

- Electromagnetic polarization systems and methods Patent  
[NASA-CASE-GSC-10021-1] c 09 N71-24595
- High speed phase detector Patent  
[NASA-CASE-XNP-01306-2] c 09 N71-24596
- Tuned analog network  
[NASA-CASE-GSC-12650-1] c 33 N84-14421

**NEUROGLIA**

- Percutaneous connector device  
[NASA-CASE-KSC-10849-1] c 52 N77-14738

**NEUROLOGY**

- Implantable electrical device  
[NASA-CASE-GSC-12560-1] c 52 N82-29863

**NEUTRALIZERS**

- Method and apparatus for neutralizing potentials induced on spacecraft surfaces  
[NASA-CASE-GSC-11963-1] c 33 N77-10429
- Method of neutralizing the corrosive surface of amine-cured epoxy resins  
[NASA-CASE-GSC-12686-1] c 27 N83-34039

## NEUTRON EMISSION

Deuterium pass through target --- neutron emitting target  
[NASA-CASE-LEW-11866-1] c 72 N76-15860

## NEUTRON SOURCES

Method and apparatus for mapping the distribution of chemical elements in an extended medium  
[NASA-CASE-GSC-12808-1] c 45 N83-20446

## NICKEL

Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142  
Selective nickel deposition  
[NASA-CASE-LEW-10965-1] c 15 N72-25452  
Brazing alloy composition  
[NASA-CASE-XMF-06053] c 26 N75-27126  
Method of making reinforced composite structure  
[NASA-CASE-LEW-12619-1] c 24 N77-19171  
Directionally solidified eutectic gamma-gamma nickel-base superalloys  
[NASA-CASE-LEW-12905-1] c 26 N78-18183  
Method of making a light weight battery plaque  
[NASA-CASE-LEW-13349-1] c 26 N84-22734

## NICKEL ALLOYS

High temperature nickel-base alloy Patent  
[NASA-CASE-XLE-00151] c 17 N70-33283  
Nickel-base alloy Patent  
[NASA-CASE-XLE-00283] c 17 N70-36616  
Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent  
[NASA-CASE-XLE-02082] c 17 N71-16026  
Nickel base alloy  
[NASA-CASE-LEW-10874-1] c 17 N72-22535  
Diffusion welding --- heat treatment of nickel alloys following single step vacuum welding process  
[NASA-CASE-LEW-11388-2] c 37 N74-21055  
Method of heat treating age-hardenable alloys  
[NASA-CASE-XNP-01311] c 26 N75-29236  
Zirconium modified nickel-copper alloy  
[NASA-CASE-LEW-12245-1] c 26 N77-20201  
Directionally solidified eutectic gamma plus beta nickel-base superalloys  
[NASA-CASE-LEW-12906-1] c 26 N77-32279  
Nickel base alloy --- for gas turbine engine stator vanes  
[NASA-CASE-LEW-12270-1] c 26 N77-32280  
Nickel ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505  
Improved nickel base coating alloy --- oxidation resistant coatings  
[NASA-CASE-LEW-13834-1] c 26 N83-24639

## NICKEL CADMIUM BATTERIES

Heat flow calorimeter --- measures output of Ni-Cd batteries  
[NASA-CASE-GSC-11434-1] c 34 N74-27859  
Method and apparatus for conditioning of nickel-cadmium batteries  
[NASA-CASE-MFS-23270-1] c 44 N78-25531

## NICKEL COATINGS

Nickel aluminide coated low alloy stainless steel  
[NASA-CASE-LEW-11267-1] c 17 N73-32414  
Selective coating for solar panels --- using black chrome and black nickel  
[NASA-CASE-LEW-12159-1] c 44 N78-19599

## NICKEL COMPOUNDS

Didymium hydrate additive to nickel hydroxide electrodes Patent  
[NASA-CASE-XGS-03505] c 03 N71-10608  
Brazing alloy  
[NASA-CASE-XNP-03878] c 26 N75-27127

## NICKEL HYDROGEN BATTERIES

Oxygen recombination in individual pressure vessel nickel-hydrogen batteries  
[NASA-CASE-LEW-13822-1] c 33 N84-29084

## NICKEL PLATE

Plating nickel on aluminum castings Patent  
[NASA-CASE-XNP-04148] c 17 N71-24830

## NICKEL ZINC BATTERIES

Additive for zinc electrodes --- electric automobiles  
[NASA-CASE-LEW-13286-1] c 33 N84-14422

## NIOBIUM

Trialkyl-dihalotantalum and niobium compounds Patent  
[NASA-CASE-XNP-04023] c 06 N71-28808

## NITRAMINE PROPELLANTS

Nitramine propellants --- gun propellant burning rate  
[NASA-CASE-NPO-14103-1] c 28 N78-31255

## NITRATES

Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MSC-18172-1] c 26 N80-19237

## NITRIC OXIDE

Reduction of nitric oxide emissions from a combustor  
[NASA-CASE-ARC-10814-2] c 07 N80-26298

## NITRIDES

Refractory coatings and method of producing the same  
[NASA-CASE-LEW-13169-1] c 26 N82-29415

## NITRILES

Intumescent paint containing nitrile rubber  
[NASA-CASE-ARC-10196-1] c 18 N73-13562  
Trimerization of aromatic nitriles  
[NASA-CASE-LEW-12053-1] c 27 N78-15276  
Process for preparing phthalocyanine polymers  
[NASA-CASE-ARC-11511-1] c 23 N84-16259

## NITRO COMPOUNDS

Intumescent coatings containing 4,4'-dinitrosulfanilide  
[NASA-CASE-ARC-11042-1] c 24 N78-14096  
The 1 - (dialkoxyposphonyl)methyl -2,4- and -2,6-dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076

## NITROAMINES

Intumescent paints Patent  
[NASA-CASE-ARC-10099-1] c 18 N71-15469  
Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines  
[NASA-CASE-ARC-10325] c 06 N72-25147

## NITROGEN

III-V photocathode with nitrogen doping for increased quantum efficiency  
[NASA-CASE-NPO-12134-1] c 33 N76-31409

## NITROGEN COMPOUNDS

Method for preparing addition type polyimide prepreps  
[NASA-CASE-LAR-12054-2] c 27 N81-14078

## NITROGEN OXIDES

Combustion engine --- for air pollution control  
[NASA-CASE-NPO-13671-1] c 37 N77-31497  
Combustor --- low nitrogen oxide formation  
[NASA-CASE-NPO-13958-1] c 25 N79-11151

## NITROGEN TETROXIDE

Procedure and apparatus for determination of water in nitrogen tetroxide  
[NASA-CASE-NPO-10234] c 06 N72-17094

## NITROGUANIDINE

Hydrazinium nitroformate propellant stabilized with nitroguanidine  
[NASA-CASE-NPO-12000] c 27 N72-25699

## NOBLE METALS

GaAs Schottky barrier photo-responsive device and method of fabrication --- photovoltaic cells  
[NASA-CASE-GSC-12816-1] c 76 N83-30268

## NODES (STANDING WAVES)

System for controlled acoustic rotation of objects  
[NASA-CASE-NPO-15522-1] c 71 N83-32516

## NOISE GENERATORS

Pseudo-noise test set for communication system evaluation --- test signals  
[NASA-CASE-MFS-22671-1] c 35 N75-21582  
Method of and means for testing a tape record/playback system  
[NASA-CASE-MFS-22671-2] c 35 N77-17426

## NOISE METERS

Instrumentation for measurement of aircraft noise and sonic boom  
[NASA-CASE-LAR-11173-1] c 35 N75-19614  
Differential sound level meter  
[NASA-CASE-LAR-12106-1] c 71 N78-14867  
Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445

## NOISE REDUCTION

Jet aircraft configuration Patent  
[NASA-CASE-XLA-00087] c 02 N70-33332  
Cassegrainian antenna subreflector flange for suppressing ground noise Patent  
[NASA-CASE-XNP-00683] c 09 N70-35425  
Device for suppressing sound and heat produced by high-velocity exhaust jets Patent  
[NASA-CASE-XMF-01813] c 28 N70-41582  
Variable time constant smoothing circuit Patent  
[NASA-CASE-XGS-01983] c 10 N70-41964  
Digital telemetry system Patent  
[NASA-CASE-XGS-01812] c 07 N71-23001  
Audio signal processor Patent  
[NASA-CASE-MSC-12223-1] c 07 N71-26181  
Variable frequency nuclear magnetic resonance spectrometer Patent  
[NASA-CASE-XNP-09830] c 14 N71-26266  
Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence  
[NASA-CASE-GSC-11133-1] c 23 N72-11568  
Audio system with means for reducing noise effects  
[NASA-CASE-NPO-11631] c 10 N73-12244  
Gas turbine exhaust nozzle --- for noise reduction  
[NASA-CASE-LEW-11569-1] c 07 N74-15453  
Totally confined explosive welding --- apparatus to reduce noise level and protect personnel during explosive bonding  
[NASA-CASE-LAR-10941-1] c 37 N74-21057

Jet exhaust noise suppressor  
[NASA-CASE-LEW-11286-1] c 07 N74-27490  
Supersonic fan blading --- noise reduction in turbofan engines  
[NASA-CASE-LEW-11402-1] c 07 N74-28226  
Variably positioned guide vanes for aerodynamic choking  
[NASA-CASE-LAR-10642-1] c 07 N74-31270  
Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts  
[NASA-CASE-LAR-11141-1] c 07 N74-32418  
Abating exhaust noises in jet engines  
[NASA-CASE-ARC-10712-1] c 07 N74-33218  
Television noise reduction device  
[NASA-CASE-MSC-12607-1] c 32 N75-21485  
Cascade plug nozzle --- for jet noise reduction  
[NASA-CASE-LAR-11674-1] c 07 N76-18117  
Apparatus for reducing aerodynamic noise in a wind tunnel  
[NASA-CASE-MFS-23099-1] c 09 N76-23273  
Optical noise suppression device and method --- laser light exposing film  
[NASA-CASE-MSC-12640-1] c 74 N76-31998  
Variable thrust nozzle for quiet turbofan engine and method of operating same  
[NASA-CASE-LEW-12317-1] c 07 N78-17055  
Magneto-optic detection system with noise cancellation  
[NASA-CASE-NPO-11954-1] c 35 N78-29421  
Totally confined explosive welding  
[NASA-CASE-LAR-10941-2] c 37 N79-13364  
Sound-suppressing structure with thermal relief  
[NASA-CASE-LEW-12658-1] c 71 N79-14871  
Acoustically swept rotor --- helicopter noise reduction  
[NASA-CASE-ARC-11106-1] c 05 N80-14107  
Support assembly for cryogenically coolable low-noise choke waveguide  
[NASA-CASE-NPO-14253-1] c 32 N80-32605  
Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999  
Multiple pure tone elimination strut assembly --- air breathing engines  
[NASA-CASE-FRC-11062-1] c 71 N82-16800  
Sound shield  
[NASA-CASE-LAR-12883-1] c 71 N83-17235  
Noise suppressor for turbo fan jet engines  
[NASA-CASE-ARC-10812-1] c 07 N83-33884  
Apparatus and method for jet noise suppression  
[NASA-CASE-LAR-11903-2] c 71 N84-14873  
Phase sensitive guidance sensor for wire-following vehicles  
[NASA-CASE-NPO-15341-1] c 35 N84-33769

**NOISE TEMPERATURE**  
Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774

**NOISE THRESHOLD**  
Frequency modulation demodulator threshold extension device Patent  
[NASA-CASE-MSC-12165-1] c 07 N71-33696

**NONADIABATIC CONDITIONS**  
Direct heating surface combustor  
[NASA-CASE-LEW-11877-1] c 34 N78-27357

**NONDESTRUCTIVE TESTS**  
Determination of spot weld quality Patent  
[NASA-CASE-XNP-02588] c 15 N71-18613  
Space simulator Patent  
[NASA-CASE-NPO-10141] c 11 N71-24964  
Apparatus for inspecting microfilm Patent  
[NASA-CASE-MFS-20240] c 14 N71-26788  
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170  
Method and device for detecting voids in low density material Patent  
[NASA-CASE-MFS-20044] c 14 N71-28993  
Holographic system for nondestructive testing  
[NASA-CASE-MFS-21704-1] c 35 N75-25124  
Method and apparatus for nondestructive testing of pressure vessels  
[NASA-CASE-NPO-12142-1] c 38 N76-28563  
Non-destructive method for applying and removing instrumentation on helicopter rotor blades  
[NASA-CASE-LAR-11201-1] c 35 N78-24515  
Hybrid holographic non-destructive test system  
[NASA-CASE-MFS-23114-1] c 38 N78-32447

**NONEQUILIBRIUM CONDITIONS**  
Condition sensor system and method  
[NASA-CASE-MSC-14805-1] c 54 N78-32720

**NONEQUILIBRIUM PLASMAS**  
Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases  
[NASA-CASE-XLE-00690] c 25 N69-39884



**NONEQUILIBRIUM RADIATION**

Non-equilibrium radiation nuclear reactor  
[NASA-CASE-HQN-10841-1] c 73 N78-19920

**NONFLAMMABLE MATERIALS**

Intumescent paint containing nitrile rubber  
[NASA-CASE-ARC-10196-1] c 18 N73-13562  
Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405  
Fire and heat resistant laminating resins based on maleimido substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697

**NONLINEAR FEEDBACK**

Coherent receiver employing nonlinear coherence detection for carrier tracking  
[NASA-CASE-NPO-11921-1] c 32 N74-30523  
Nonlinear nonsingular feedback shift registers  
[NASA-CASE-NPO-13451-1] c 33 N76-14373

**NONLINEAR FILTERS**

Apparatus for damping operator induced oscillations of a controlled system --- flight control  
[NASA-CASE-FRC-11041-1] c 33 N82-18493

**NONLINEAR SYSTEMS**

Phase detector assembly Patent  
[NASA-CASE-XMF-00701] c 09 N70-40272  
Nonlinear analog-to-digital converter Patent  
[NASA-CASE-XAC-04031] c 08 N71-18594  
Split range transducer  
[NASA-CASE-XLA-11189] c 10 N72-20222  
Contour measurement system  
[NASA-CASE-MFS-23726-1] c 43 N79-26439

**NORMAL DENSITY FUNCTIONS**

Ultrasonic transducer with Gaussian radial pressure distribution  
[NASA-CASE-LAR-12967-1] c 35 N84-22932

**NOSE CONES**

Automatically deploying nozzle exit cone extension Patent  
[NASA-CASE-XLE-01640] c 31 N71-15637  
Nose cone mounted heat resistant antenna Patent  
[NASA-CASE-XMS-04312] c 07 N71-22984

**NOSE WHEELS**

Nose gear steering system for vehicle with main skids Patent  
[NASA-CASE-XLA-01804] c 02 N70-34160

**NOTCH STRENGTH**

Active notch filter network with variable notch depth, width and frequency  
[NASA-CASE-FRC-11055-1] c 33 N80-29583

**NOTCH TESTS**

Vee-notching device --- with adjustable carriage  
[NASA-CASE-MFS-20730-1] c 39 N74-13131  
Notch filter  
[NASA-CASE-MFS-23303-1] c 32 N77-18307

**NOTCHES**

Notch filter  
[NASA-CASE-MFS-23303-1] c 32 N77-18307

**NOZZLE DESIGN**

Annular rocket motor and nozzle configuration Patent  
[NASA-CASE-XLE-00078] c 28 N70-33284  
Penshape exhaust nozzle for supersonic engine Patent  
[NASA-CASE-XLE-00057] c 28 N70-38711  
Telescoping-spike supersonic inlet for aircraft engines Patent  
[NASA-CASE-XLE-00005] c 28 N70-39899  
Automatically deploying nozzle exit cone extension Patent  
[NASA-CASE-XLE-01640] c 31 N71-15637  
Injector assembly for liquid fueled rocket engines Patent  
[NASA-CASE-XMF-00968] c 28 N71-15660  
Collapsible nozzle extension for rocket engines Patent  
[NASA-CASE-MFS-11497] c 28 N71-16224  
Gas turbine combustion apparatus Patent  
[NASA-CASE-XLE-103477-1] c 28 N71-20330  
Prestressed refractory structure Patent  
[NASA-CASE-XNP-02888] c 18 N71-21068  
Scanning nozzle plating system --- for etching or plating metals on substrates without masking  
[NASA-CASE-NPO-11758-1] c 31 N74-23065  
Variable thrust nozzle for quiet turbofan engine and method of operating same  
[NASA-CASE-LEW-12317-1] c 07 N78-17055  
Variable area exhaust nozzle  
[NASA-CASE-LEW-12378-1] c 07 N79-14097  
Aircraft engine nozzle  
[NASA-CASE-ARC-10977-1] c 07 N80-32392  
Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371  
Controlled overspray spray nozzle  
[NASA-CASE-MFS-25139-1] c 34 N82-13376

**NOZZLE FLOW**

Control system for rocket vehicles Patent  
[NASA-CASE-XLA-01163] c 21 N71-15582  
Aerodynamic spike nozzle Patent  
[NASA-CASE-XGS-01143] c 31 N71-15647  
Propellant mass distribution metering apparatus Patent  
[NASA-CASE-NPO-10185] c 10 N71-26339  
Tertiary flow injection thrust vectoring system Patent  
[NASA-CASE-MFS-20831] c 28 N71-29153  
Multi-purpose wind tunnel reaction control model block  
[NASA-CASE-MSC-19706-1] c 09 N78-31129

**NOZZLE GEOMETRY**

Method of making a rocket nozzle  
[NASA-CASE-XMF-06884-1] c 20 N79-21123

**NOZZLE INSERTS**

Self-sealing, unbonded, rocket motor nozzle closure Patent  
[NASA-CASE-XLA-02651] c 28 N70-41967  
Wind tunnel supplementary Mach number minimum section insert  
[NASA-CASE-LAR-12532-1] c 09 N82-11088

**NUCLEAR EXPLOSION EFFECT**

Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent  
[NASA-CASE-XNP-01310] c 33 N71-28852

**NUCLEAR FUEL ELEMENTS**

Nuclear fuel elements  
[NASA-CASE-XLE-00209] c 22 N73-32528

**NUCLEAR MAGNETIC RESONANCE**

Variable frequency nuclear magnetic resonance spectrometer Patent  
[NASA-CASE-XNP-09830] c 14 N71-26266

**NUCLEAR MEDICINE**

Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053

**NUCLEAR POWER PLANTS**

Self-adjusting multisegment, deployable, natural circulation radiator Patent  
[NASA-CASE-XHQ-03673] c 33 N71-29046

**NUCLEAR PUMPED LASERS**

Volumetric direct nuclear pumped laser  
[NASA-CASE-LAR-12183-1] c 36 N79-18307

**NUCLEAR PUMPING**

Large volume multiple-path nuclear pumped laser  
[NASA-CASE-LAR-12592-1] c 36 N82-13415

**NUCLEAR REACTOR CONTROL**

Gaseous control system for nuclear reactors  
[NASA-CASE-XLE-04599] c 22 N72-20597  
Control for nuclear thermionic power source  
[NASA-CASE-NPO-13114-2] c 73 N78-28913

**NUCLEAR REACTORS**

Nuclear thermionic converter --- tungsten-thorium oxide rods  
[NASA-CASE-NPO-13121-1] c 73 N77-18891  
High thermal power density heat transfer apparatus providing electrical isolation at high temperature using heat pipes  
[NASA-CASE-LEW-12950-2] c 44 N83-29804

**NUCLEATE BOILING**

Method of improving heat transfer characteristics in a nucleate boiling process Patent  
[NASA-CASE-XMS-04268] c 33 N71-16277

**NULL ZONES**

Null device for hand controller Patent  
[NASA-CASE-XLA-01808] c 15 N71-20740

**NUMBER THEORY**

Binary concatenated coding system  
[NASA-CASE-MSC-14082-1] c 60 N76-23850

**NUMERICAL CONTROL**

Fringe counter for interferometers Patent  
[NASA-CASE-LAR-10204] c 14 N71-27215  
Digital numerically controlled oscillator  
[NASA-CASE-MSC-16747-1] c 33 N81-17349  
Controller for computer control of brushless dc motors --- automobile engines  
[NASA-CASE-NPO-13970-1] c 33 N81-20352

**NUMERICAL INTEGRATION**

Apparatus for computing square roots Patent  
[NASA-CASE-XGS-04768] c 08 N71-19437

**NUOTATION**

Method and means for damping nutation in a satellite Patent  
[NASA-CASE-XMF-00442] c 31 N71-10747

**NUOTATION DAMPERS**

Nutation damper  
[NASA-CASE-GSC-11205-1] c 15 N73-25513

**NUOTATION DAMPERS**

Active nutation controller  
[NASA-CASE-GSC-12273-1] c 35 N80-21719

Method of damping nutation motion with minimum spin axis attitude disturbance  
[NASA-CASE-GSC-12551-1] c 18 N83-28064

**NUTS (FASTENERS)**

Separation nut Patent  
[NASA-CASE-XGS-01871] c 15 N71-15922  
Split nut separation system Patent  
[NASA-CASE-XNP-06914] c 15 N71-21489  
Fastener stretcher  
[NASA-CASE-GSC-11149-1] c 15 N73-30457  
High-torque open-end wrench  
[NASA-CASE-NPO-13541-1] c 37 N79-14383  
Floating nut retention system  
[NASA-CASE-MSC-16938-1] c 37 N80-23653

**O****O RING SEALS**

High pressure four-way valve Patent  
[NASA-CASE-XNP-00214] c 15 N70-36908  
Self-stabilizing radial face seal  
[NASA-CASE-LEW-12991-1] c 37 N81-24442  
Circumferential shaft seal  
[NASA-CASE-LEW-12119-2] c 37 N81-26447  
Modified spiral wound retaining ring  
[NASA-CASE-LAR-12361-1] c 37 N83-19091  
Resilient seal ring assembly with spring means applying force to wedge member --- cryogenic applications  
[NASA-CASE-MFS-25678-1] c 37 N84-11497

**OBLIQUE WINGS**

Oblique-wing supersonic aircraft  
[NASA-CASE-ARC-10470-3] c 05 N76-29217

**OCCCLUSION**

Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744

**OCEAN CURRENTS**

Method and apparatus for Delta K synthetic aperture radar measurement of ocean current  
[NASA-CASE-NPO-15704-1] c 32 N82-28502

**OCEAN DATA ACQUISITIONS SYSTEMS**

Oceanic wave measurement system  
[NASA-CASE-MFS-23862-1] c 48 N80-18667

**OCEAN SURFACE**

Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks  
[NASA-CASE-NPO-13862-1] c 35 N79-10391  
Oceanic wave measurement system  
[NASA-CASE-MFS-23862-1] c 48 N80-18667

**OCEAN THERMAL ENERGY CONVERSION**

Ocean thermal plant  
[NASA-CASE-KSC-11034-1] c 44 N78-32542

**OFFSHORE PLATFORMS**

Ocean thermal plant  
[NASA-CASE-KSC-11034-1] c 44 N78-32542

**OHMMETERS**

Positive contact resistance soldering unit  
[NASA-CASE-KSC-10242] c 15 N72-23497

**OIL EXPLORATION**

Underwater seismic source --- for petroleum exploration  
[NASA-CASE-NPO-14255-1] c 46 N79-23555  
Borehole geological assessment  
[NASA-CASE-NPO-14231-1] c 46 N80-10709

**OIL RECOVERY**

Oil and fat absorbing polymers  
[NASA-CASE-NPO-11609-2] c 27 N77-31308  
In-situ laser retorting of oil shale  
[NASA-CASE-LEW-12217-1] c 43 N78-14452  
Crude oil desulfurization  
[NASA-CASE-NPO-14542-1] c 25 N82-23282  
Solar-heated oil shale retort  
[NASA-CASE-NPO-18392-1] c 44 N84-32912

**OILS**

Method of recording a gas flow pattern Patent  
[NASA-CASE-XMF-01779] c 12 N71-20815  
Oil and fat absorbing polymers  
[NASA-CASE-NPO-11609-2] c 27 N77-31308

**OMNIDIRECTIONAL ANTENNAS**

Omnidirectional microwave spacecraft antenna Patent  
[NASA-CASE-XLA-03114] c 09 N71-22888  
Stacked array of omnidirectional antennas  
[NASA-CASE-LAR-10545-1] c 09 N72-21244  
Omnidirectional slot antenna for mounting on cylindrical space vehicle  
[NASA-CASE-LAR-10183-1] c 09 N72-25247

**ONBOARD EQUIPMENT**

Survival couch Patent  
[NASA-CASE-XLA-00118] c 05 N70-33285  
Cryogenic storage system Patent  
[NASA-CASE-XMS-04390] c 31 N70-41871  
Fiber optic vibration transducer and analyzer Patent  
[NASA-CASE-XMF-02433] c 14 N71-10616  
Satellite appendage tie down cord Patent  
[NASA-CASE-XGS-02554] c 31 N71-21064  
Satellite aided vehicle avoidance system Patent  
[NASA-CASE-ERC-10090] c 21 N71-24948



A dc servosystem including an ac motor Patent  
[NASA-CASE-NPO-10700] c 07 N71-33613

Collapsible Apollo couch  
[NASA-CASE-MSC-13140] c 05 N72-11085

Monostable multivibrator  
[NASA-CASE-GSC-10082-1] c 10 N72-20221

Delayed simultaneous release mechanism  
[NASA-CASE-GSC-10814-1] c 03 N73-20039

Electronic strain-level counter  
[NASA-CASE-LAR-10756-1] c 32 N73-26910

Magnetic heading reference  
[NASA-CASE-LAR-11387-1] c 04 N76-20114

**OPERATING TEMPERATURE**  
Solar cell having improved back surface reflector  
[NASA-CASE-LEW-13620-1] c 44 N83-13579

**OPERATIONAL AMPLIFIERS**  
Digital automatic gain amplifier  
[NASA-CASE-KSC-11008-1] c 33 N79-22373

Reactanceless bandpass amplifier  
[NASA-CASE-GSC-12788-1] c 33 N83-12333

Automatic level control circuit  
[NASA-CASE-KSC-11170-1] c 33 N83-36356

Phase detector for three-phase power factor controller  
[NASA-CASE-MFS-25854-1] c 33 N84-27975

**OPHTHALMOLOGY**  
Ophthalmic method and apparatus  
[NASA-CASE-LEW-11669-1] c 05 N73-27062

Ophthalmic liquifaction pump  
[NASA-CASE-LEW-12051-1] c 52 N75-33640

**OPTICAL COMMUNICATION**  
Retrodirective optical system  
[NASA-CASE-XGS-04480] c 16 N69-27491

Optical communications system Patent  
[NASA-CASE-XLA-01090] c 07 N71-12389

Optical frequency waveguide and transmission system Patent  
[NASA-CASE-HQN-10541-4] c 16 N71-27183

Optical communications system Patent  
[NASA-CASE-XLA-01090] c 16 N71-28963

High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119

Apparatus for simulating optical transmission links  
[NASA-CASE-GSC-11877-1] c 74 N76-18913

Fiber distributed feedback laser  
[NASA-CASE-NPO-13531-1] c 36 N76-24553

Polarization compensator for optical communications  
[NASA-CASE-GSC-11782-1] c 74 N76-30053

Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942

Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346

Fiber optic multiplex optical transmission system  
[NASA-CASE-KSC-11047-1] c 74 N78-14889

Fiber optic crossbar switch for automatically patching optical signals  
[NASA-CASE-KSC-11104-1] c 74 N83-29032

Synchronization tracking in pulse position modulation receiver  
[NASA-CASE-NPO-16256-1] c 32 N84-32620

**OPTICAL COUPLING**  
Automatic quadrature control and measuring system --- using optical coupling circuitry  
[NASA-CASE-MFS-21660-1] c 35 N74-21017

Method for making a bonded single mode fiber optic wavelength coupler  
[NASA-CASE-NPO-15464-1] c 74 N83-25540

**OPTICAL DATA PROCESSING**  
Optical data processing using paraboloidal mirror segments  
[NASA-CASE-GSC-11296-1] c 23 N73-30666

Recorder/processor apparatus --- for optical data processing  
[NASA-CASE-GSC-11553-1] c 35 N74-15831

Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-1] c 32 N79-19195

Interleaving device  
[NASA-CASE-GSC-12111-2] c 33 N81-29342

Real-time multiple-look synthetic aperture radar processor for spacecraft applications  
[NASA-CASE-NPO-14054-1] c 32 N82-12297

Optical stereo video signal processor --- line of sight tracking  
[NASA-CASE-MFS-25752-1] c 74 N83-21950

Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-2] c 32 N83-31918

**OPTICAL DENSITY**  
Medical diagnosis system and method with multispectral imaging --- depth of burns and optical density of the skin  
[NASA-CASE-NPO-14402-1] c 52 N81-27783

**OPTICAL EMISSION SPECTROSCOPY**  
Maksutov spectrograph Patent  
[NASA-CASE-XLA-10402] c 14 N71-29041

**OPTICAL EQUIPMENT**

Light detection instrument Patent  
[NASA-CASE-XGS-05534] c 23 N71-16355

Optical characteristics measuring apparatus Patent  
[NASA-CASE-XNP-08840] c 23 N71-16365

Combined optical altitude and altitude indicating instrument Patent  
[NASA-CASE-XLA-01907] c 14 N71-23268

Laser grating interferometer Patent  
[NASA-CASE-XLA-04295] c 16 N71-24170

Optical mirror apparatus Patent  
[NASA-CASE-ERC-10001] c 23 N71-24868

Method for generating ultra-precise angles Patent  
[NASA-CASE-XGS-04173] c 19 N71-26674

Petzval type objective including field shaping lens Patent  
[NASA-CASE-GSC-10700] c 23 N71-30027

Compact spectroradiometer  
[NASA-CASE-HQN-10683] c 14 N71-34389

Fine adjustment mount  
[NASA-CASE-MFS-20249] c 15 N72-11386

Method of coating solar cell with borosilicate glass and resultant product  
[NASA-CASE-GSC-11514-1] c 03 N72-24037

Light sensor  
[NASA-CASE-NPO-11311] c 14 N72-25414

Boreoscope with variable angle scope  
[NASA-CASE-MFS-15162] c 14 N72-32452

Cyclically operable optical shutter  
[NASA-CASE-NPO-10758] c 14 N73-14427

Star tracking reticles and process for the production thereof  
[NASA-CASE-GSC-11188-2] c 21 N73-19630

Infrared horizon locator  
[NASA-CASE-LAR-10726-1] c 14 N73-20475

Multiple pass reimagining optical system  
[NASA-CASE-ARC-10194-1] c 23 N73-20741

Attitude sensor  
[NASA-CASE-LAR-10586-1] c 19 N74-15089

Formation of star tracking reticles  
[NASA-CASE-GSC-11188-3] c 74 N74-20008

Method and apparatus for optically monitoring the angular position of a rotating mirror  
[NASA-CASE-GSC-11533-1] c 74 N74-21304

Single reflector interference spectrometer and drive system therefor  
[NASA-CASE-NPO-11932-1] c 35 N74-23040

Strain gauge ambiguity sensor for segmented mirror active optical system  
[NASA-CASE-MFS-20506-1] c 35 N75-12273

Optical alignment device  
[NASA-CASE-ARC-10932-1] c 74 N76-22993

Visual examination apparatus  
[US-PATENT-RE-28,921] c 52 N76-30793

Optical instrument employing reticle having preselected visual response pattern formed thereon  
[NASA-CASE-ARC-10976-1] c 74 N77-22950

Opto-mechanical subsystem with temperature compensation through isothermal design  
[NASA-CASE-GSC-12059-1] c 35 N77-27366

Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932

Method of treating the surface of a glass member  
[NASA-CASE-GSC-12110-1] c 27 N77-32308

Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses  
[NASA-CASE-ARC-11039-1] c 74 N78-32854

Water system virus detection  
[NASA-CASE-MSC-16098-1] c 51 N79-10693

Method of forming a sharp edge on an optical device  
[NASA-CASE-GSC-12348-1] c 74 N80-24149

Heat reflecting field stop  
[NASA-CASE-LAR-12443-1] c 74 N82-19030

Tool for releasing optical elements  
[NASA-CASE-GSC-12794-1] c 37 N83-12434

Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978

Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541

High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898

High-temperature, high-pressure optical cell  
[NASA-CASE-MFS-26000-1] c 74 N84-16886

Containerless high purity pulling process and apparatus for glass fibers  
[NASA-CASE-MFS-25905-2] c 31 N84-32569

**OPTICAL FILTERS**  
High temperature lens construction Patent  
[NASA-CASE-XNP-04111] c 14 N71-15622

Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence  
[NASA-CASE-GSC-11133-1] c 23 N72-11568

Optical noise suppression device and method --- laser light exposing film  
[NASA-CASE-MSC-12640-1] c 74 N76-31998

System for producing chroma signals  
[NASA-CASE-MSC-14683-1] c 74 N77-18893

Optical conversion method --- for spacecraft television  
[NASA-CASE-MSC-12618-1] c 74 N78-17865

Partial polarizer filter  
[NASA-CASE-GSC-12225-1] c 74 N79-14891

Multispectral linear array multiband selection device  
[NASA-CASE-GSC-12911-1] c 35 N84-25016

Portable reflectance spectrometer  
[NASA-CASE-NPO-13558-1] c 35 N84-33766

**OPTICAL GYROSCOPES**  
Optical gyroscope system  
[NASA-CASE-NPO-14258-1] c 35 N81-33448

Laser pulse detection method and apparatus  
[NASA-CASE-NPO-16030-1] c 36 N84-25037

**OPTICAL HETERODYNING**  
Multispectral imaging system  
[NASA-CASE-MSC-12404-1] c 23 N73-13661

Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942

Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346

**OPTICAL MEASUREMENT**  
Passive optical wind and turbulence detection system Patent  
[NASA-CASE-XMF-14032] c 20 N71-16340

Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent  
[NASA-CASE-XGS-05291] c 23 N71-16341

Single reflector interference spectrometer and drive system therefor  
[NASA-CASE-NPO-11932-1] c 35 N74-23040

Hybrid holographic non-destructive test system  
[NASA-CASE-MFS-23114-1] c 38 N78-32447

Plural output optometric sample cell and analysis system  
[NASA-CASE-NPO-10233-1] c 74 N78-33913

Apparatus for fiber optic liquid level sensing  
[NASA-CASE-MSC-18674-1] c 74 N81-24907

Film advance indicator  
[NASA-CASE-LAR-12474-1] c 35 N82-26628

Interferometric angle monitor  
[NASA-CASE-GSC-12614-1] c 74 N83-32577

Optical multiple sample vacuum integrating sphere  
[NASA-CASE-GSC-12849-1] c 74 N84-15960

Rotary target V-block  
[NASA-CASE-LAR-12007-3] c 35 N84-16523

Portable reflectance spectrometer  
[NASA-CASE-NPO-13558-1] c 35 N84-33766

**OPTICAL MEASURING INSTRUMENTS**  
Optically pumped resonance magnetometer for determining vectorial components in a spatial coordinate system Patent  
[NASA-CASE-XGS-04879] c 14 N71-20428

Optical machine tool alignment indicator Patent  
[NASA-CASE-XAC-09499-1] c 15 N71-26673

Optical systems having spatially invariant outputs  
[NASA-CASE-ERC-10248] c 14 N72-17323

Optical probing of supersonic flows with statistical correlation  
[NASA-CASE-MFS-20642] c 14 N72-21407

Multiparameter vision testing apparatus  
[NASA-CASE-MSC-13601-2] c 54 N75-27759

Noncontacting method for measuring angular deflection  
[NASA-CASE-LAR-12178-1] c 74 N80-21138

Visible and infrared polarization ratio spectroradiometer  
[NASA-CASE-LAR-12285-1] c 35 N80-28687

Interferometer  
[NASA-CASE-NPO-14502-1] c 74 N81-17888

Focal plane array optical proximity sensor  
[NASA-CASE-NPO-15155-1] c 74 N81-22894

Optical crystal temperature gauge with fiber optic connections  
[NASA-CASE-MSC-18627-1] c 74 N82-30071

Optical fiber tactile sensor  
[NASA-CASE-NPO-15375-1] c 74 N84-11921

**OPTICAL PATHS**  
Optical instruments  
[NASA-CASE-MSC-14096-1] c 74 N74-15095

Large volume multiple-path nuclear pumped laser  
[NASA-CASE-LAR-12592-1] c 36 N82-13415

**OPTICAL PROPERTIES**  
Optical torqueometer Patent  
[NASA-CASE-XLE-00503] c 14 N70-34818

Quasi-optical microwave component Patent  
[NASA-CASE-ERC-10011] c 07 N71-29065

Light sensor  
[NASA-CASE-NPO-11311] c 14 N72-25414

- Light direction sensor  
[NASA-CASE-NPO-11201] c 14 N72-27409
- Device and method for determining X ray reflection efficiency of optical surfaces  
[NASA-CASE-MFS-20243] c 23 N73-13662
- Formation of star tracking reticles  
[NASA-CASE-GSC-11188-3] c 74 N74-20008
- Optically actuated two position mechanical mover  
[NASA-CASE-NPO-13105-1] c 37 N74-21060
- Modification of the electrical and optical properties of polymers — ion irradiation to create texture  
[NASA-CASE-LEW-13027-1] c 27 N80-24437
- OPTICAL PUMPING**
- Optical pump and driver system for lasers  
[NASA-CASE-ERC-10283] c 16 N72-25485
- Laser head for simultaneous optical pumping of several dye lasers — with single flash lamp  
[NASA-CASE-LAR-11341-1] c 36 N75-19655
- Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6  
[NASA-CASE-NPO-13993-1] c 72 N79-13826
- Active lamp pulse driver circuit — optical pumping of laser media  
[NASA-CASE-GSC-12566-1] c 33 N83-34189
- Off-axis coherently pumped laser  
[NASA-CASE-GSC-12592-1] c 36 N84-28065
- OPTICAL PYROMETERS**
- Motion picture camera for optical pyrometry Patent  
[NASA-CASE-XLA-00062] c 14 N70-33254
- OPTICAL RADAR**
- Acquisition and tracking system for optical radar  
[NASA-CASE-MFS-20125] c 16 N72-13437
- OPTICAL RANGE FINDERS**
- Altitude sensing device  
[NASA-CASE-XMS-01994-1] c 14 N72-17326
- Optical range finder having nonoverlapping complete images  
[NASA-CASE-MSC-12105-1] c 14 N72-21409
- Ranging system — industrial robotics  
[NASA-CASE-NPO-15865-1] c 74 N83-12991
- OPTICAL REFLECTION**
- Hybrid holographic system using reflected and transmitted object beams simultaneously Patent  
[NASA-CASE-MFS-20074] c 16 N71-15565
- Method for generating ultra-precise angles Patent  
[NASA-CASE-XGS-04173] c 19 N71-26674
- Illumination system including a virtual light source Patent  
[NASA-CASE-HQN-10781] c 23 N71-30292
- Diffuse reflective coating  
[NASA-CASE-GSC-11214-1] c 06 N73-13128
- Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942
- Lightweight reflector assembly  
[NASA-CASE-NPO-13707-1] c 74 N77-28933
- Method and apparatus for splitting a beam of energy — optical communication  
[NASA-CASE-GSC-12083-1] c 73 N78-32848
- Apparatus for and method of compensating dynamic unbalance  
[NASA-CASE-GSC-12550-1] c 37 N84-28082
- OPTICAL RESONANCE**
- Optically pumped resonance magnetometer for determining vectorial components in a spatial coordinate system Patent  
[NASA-CASE-XGS-04879] c 14 N71-20428
- Laser system with an antiresonant optical ring  
[NASA-CASE-HQN-10844-1] c 36 N75-19653
- OPTICAL SCANNERS**
- Optical spin compensator  
[NASA-CASE-XGS-02401] c 14 N69-27485
- Optical inspection apparatus Patent  
[NASA-CASE-XMF-00462] c 14 N70-34298
- Electro-optical scanning apparatus Patent Application  
[NASA-CASE-NPO-11106] c 14 N70-34697
- Multi-lobar scan horizon sensor Patent  
[NASA-CASE-XGS-00809] c 21 N70-35427
- Optical binocular scanning apparatus  
[NASA-CASE-NPO-11002] c 14 N72-22441
- Spacecraft attitude sensor  
[NASA-CASE-GSC-10890-1] c 21 N73-30640
- Optical instruments  
[NASA-CASE-MSC-14096-1] c 74 N74-15095
- Dual digital video switcher  
[NASA-CASE-KSC-10782-1] c 33 N75-30431
- Traffic survey system — using optical scanners  
[NASA-CASE-MFS-22631-1] c 66 N76-19888
- Optical scanner — laser doppler velocimeters  
[NASA-CASE-LAR-11711-1] c 74 N78-17866
- Device for measuring the contour of a surface  
[NASA-CASE-LAR-11869-1] c 74 N78-27904
- Velocity servo for continuous scan Fourier interference spectrometer  
[NASA-CASE-NPO-14093-1] c 35 N80-20563
- Method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width  
[NASA-CASE-NPO-14295-1] c 76 N80-32245
- Scanning afocal laser velocimeter projection lens system  
[NASA-CASE-LAR-12328-1] c 36 N82-32712
- Optical scanner  
[NASA-CASE-GSC-12897-1] c 74 N84-25450
- OPTICAL TRACKING**
- Sun tracker with rotatable plane-parallel plate and two photocells Patent  
[NASA-CASE-XGS-01159] c 21 N71-10678
- Optical tracker having overlapping reticles on parallel axes Patent  
[NASA-CASE-XGS-05715] c 23 N71-16100
- Optical tracking mount Patent  
[NASA-CASE-MFS-14017] c 14 N71-26627
- Solar tracking system  
[NASA-CASE-MFS-23999-1] c 44 N81-24520
- Optical stereo video signal processor — line of sight tracking  
[NASA-CASE-MFS-25752-1] c 74 N83-21950
- Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768
- OPTICAL TRANSFER FUNCTION**
- Electronic optical transfer function analyzer  
[NASA-CASE-MFS-21672-1] c 74 N76-19935
- OPTICAL WAVEGUIDES**
- Fiber optic transmission line stabilization apparatus and method  
[NASA-CASE-NPO-15036-1] c 74 N82-19029
- Method for making a bonded single mode fiber optic wavelength coupler  
[NASA-CASE-NPO-15464-1] c 74 N83-25540
- OPTIMIZATION**
- Maximum power point tracker Patent  
[NASA-CASE-GSC-10376-1] c 14 N71-27407
- OPTOGALVANIC SPECTROSCOPY**
- Discharge cell for optogalvanic spectroscopy having orthogonal relationship between the probe laser and discharge axis  
[NASA-CASE-NPO-16271-1] c 36 N84-15537
- ORAL HYGIENE**
- Acoustic tooth cleaner  
[NASA-CASE-LAR-12471-1] c 52 N82-29862
- ORBIT TRANSFER VEHICLES**
- Tanker orbit transfer vehicle and method  
[NASA-CASE-MSC-20543-1] c 18 N84-22610
- ORBITAL ASSEMBLY**
- Structural members, method and apparatus  
[NASA-CASE-MSC-16217-1] c 31 N81-27323
- Beam connector apparatus and assembly  
[NASA-CASE-MFS-25134-1] c 31 N83-31895
- ORBITAL MANEUVERS**
- Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278
- ORBITAL MECHANICS**
- A method of delivering a vehicle to earth orbit and returning the reusable portion thereof to earth  
[NASA-CASE-MSC-12391] c 30 N73-12884
- ORBITAL SERVICING**
- Electrical self-aligning connector — orbital servicer vehicles  
[NASA-CASE-MFS-25211-2] c 33 N84-14423
- Tanker orbit transfer vehicle and method  
[NASA-CASE-MSC-20543-1] c 18 N84-22610
- Constant force friction damper  
[NASA-CASE-MSC-20505-1] c 18 N84-22611
- ORBITAL SPACE STATIONS**
- Radial module space station Patent  
[NASA-CASE-XMS-01906] c 31 N70-41373
- Serpentuator Patent  
[NASA-CASE-XMF-05344] c 31 N71-16345
- Space manufacturing machine Patent  
[NASA-CASE-MFS-20410] c 15 N71-19214
- ORGANIC CHEMISTRY**
- Process for interfacial polymerization of pyromellitic dianhydride and 1,2,4, 5-tetraamino-benzene Patent  
[NASA-CASE-XLA-03104] c 06 N71-11235
- Amino acid analysis  
[NASA-CASE-NPO-12130-1] c 25 N75-14844
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-3] c 24 N84-22698
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-4] c 24 N84-22699
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-5] c 24 N84-22700
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-6] c 24 N84-22701
- ORGANIC COMPOUNDS**
- Process for preparation of dianilinosilanes Patent  
[NASA-CASE-XMF-06409] c 06 N71-23230
- Dicyanoacetylene polymers Patent  
[NASA-CASE-XNP-03250] c 06 N71-23500
- Epoxy-aziridine polymer product Patent  
[NASA-CASE-NPO-10701] c 06 N71-28620
- Diffuse reflective coating  
[NASA-CASE-GSC-11214-1] c 06 N73-13128
- Automated system for identifying traces of organic chemical compounds in aqueous solutions  
[NASA-CASE-NPO-13063-1] c 25 N76-18245
- Analysis of volatile organic compounds — trace amounts of organic volatiles in gas samples  
[NASA-CASE-MSC-14428-1] c 23 N77-17161
- Electrophotolysis oxidation system for measurement of organic concentration in water  
[NASA-CASE-MSC-18497-1] c 25 N82-12166
- Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746
- ORGANIC PHOSPHORUS COMPOUNDS**
- Fire resistant polymers based on 1-((dialkoxyporphonyl)methyl)-2,4-2,8-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702
- ORGANIC SILICON COMPOUNDS**
- Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers  
[NASA-CASE-ARC-10915-2] c 27 N79-18052
- ORGANIC SULFUR COMPOUNDS**
- Coal desulfurization — using iron pentacarbonyl  
[NASA-CASE-NPO-14272-1] c 25 N81-33246
- ORGANOMETALLIC COMPOUNDS**
- Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent  
[NASA-CASE-LAR-10173-1] c 27 N71-14090
- Trialkyl-dihalotantalum and niobium compounds Patent  
[NASA-CASE-XNP-04023] c 06 N71-28808
- Carboranyl-methylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750
- ORGANOMETALLIC POLYMERS**
- Metal containing polymers from cyclic tetrameric phenylphosphonitridamides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363
- Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids  
[NASA-CASE-MFS-22411-1] c 37 N74-21058
- ORIFICE FLOW**
- Relief valve  
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[NASA-CASE-XMS-04201] c 14 N71-22990

**PARTICLE DENSITY (CONCENTRATION)**  
Micrometeoroid velocity measuring device Patent  
[NASA-CASE-XLA-00495] c 14 N70-41332  
Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112

**PARTICLE DIFFUSION**  
Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112

**PARTICLE EMISSION**  
Extended area semiconductor radiation detectors and a novel readout arrangement Patent  
[NASA-CASE-XGS-03230] c 14 N71-23401  
Coincidence apparatus for detecting particles  
[NASA-CASE-XLA-07813] c 14 N72-17328

**PARTICLE ENERGY**  
Particle detection apparatus Patent  
[NASA-CASE-XLA-00135] c 14 N70-33322  
Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N76-22509

**PARTICLE MASS**  
Cosmic dust analyzer  
[NASA-CASE-MSC-13802-2] c 35 N78-15431  
Microbalance --- for measuring particle mass  
[NASA-CASE-MSC-11242] c 35 N78-17358

**PARTICLE MOTION**  
Moving particle composition analyzer  
[NASA-CASE-GSC-11889-1] c 35 N76-16393

**PARTICLE PRECIPITATION**  
Acoustic agglomeration methods and apparatus  
[NASA-CASE-NPO-15466-1] c 71 N82-27087

## PARTICLE PRODUCTION

- Production of I-123  
[NASA-CASE-LEW-11390-3] c 25 N76-29379
- PARTICLE SIZE DISTRIBUTION**  
Micropacked column for a chromatographic system  
[NASA-CASE-XNP-04816] c 06 N69-39936  
Apparatus for making a metal slurry product Patent  
[NASA-CASE-XLE-00010] c 15 N70-33382  
Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent  
[NASA-CASE-XLE-03940] c 18 N71-26153  
Grain refinement control in TIG arc welding  
[NASA-CASE-MS-19095-1] c 37 N75-19683  
Apparatus for handling micron size range particulate material  
[NASA-CASE-NPO-10151] c 37 N78-17386  
Frequency-scanning particle size spectrometer  
[NASA-CASE-NPO-13606-2] c 35 N80-18364  
Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-18242  
Polyvinyl alcohol battery separator containing inert filler — alkaline batteries  
[NASA-CASE-LEW-13556-1] c 44 N81-27615  
Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112  
Powder fed sheared dispersal particle generator  
[NASA-CASE-LAR-12785-1] c 37 N84-16561
- PARTICLE TRAJECTORIES**  
Micrometeoroid velocity and trajectory analyzer  
[NASA-CASE-GSC-11892-1] c 35 N76-15433  
Direction sensitive laser velocimeter — determining the direction of particles using a helium-neon laser  
[NASA-CASE-LAR-12177-1] c 36 N81-24422
- PARTICLES**  
Soil particles separator, collector and viewer Patent  
[NASA-CASE-XNP-09770] c 15 N71-20440  
Apparatus for producing metal powders  
[NASA-CASE-XLE-06481-2] c 17 N72-28535  
Particle parameter analyzing system — x-y plotter circuits and display  
[NASA-CASE-XLE-06094] c 33 N78-17293  
Surfactant-assisted liquefaction of particulate carbonaceous substances  
[NASA-CASE-NPO-13904-1] c 25 N79-11152
- PARTICULATE SAMPLING**  
Apparatus for sampling particulates in gases  
[NASA-CASE-HQN-10037-1] c 14 N73-27376  
Electrophoretic sample insertion — device for uniformly distributing samples in flow path  
[NASA-CASE-MFS-21395-1] c 25 N74-26948  
Sampler of gas borne particles  
[NASA-CASE-NPO-13396-1] c 35 N76-18401  
Fine particulate capture device  
[NASA-CASE-LEW-11583-1] c 35 N79-17192  
Biocontamination and particulate detection system  
[NASA-CASE-NPO-13953-1] c 35 N79-28527  
Particle analyzing method and apparatus  
[NASA-CASE-NPO-15292-1] c 35 N83-27184
- PASSAGEWAYS**  
Inflatable tether Patent  
[NASA-CASE-XMS-10993] c 15 N71-28936  
Vortex generating flow passage design for increased film cooling effectiveness  
[NASA-CASE-LEW-13039-1] c 34 N84-20782
- PASSENGERS**  
Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445
- PASSIVE SATELLITES**  
Passive communication satellite Patent  
[NASA-CASE-XLA-00210] c 30 N70-40309  
Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent  
[NASA-CASE-XGS-02608] c 07 N70-41678  
Method of making an inflatable panel Patent  
[NASA-CASE-XLA-03497] c 15 N71-23052
- PATENTS**  
Constant magnification optical tracking system  
[NASA-CASE-NPO-14813-1] c 74 N82-24072  
Method for depositing an oxide coating  
[NASA-CASE-LEW-13131-1] c 44 N83-10494  
High stability amplifier  
[NASA-CASE-GSC-12646-1] c 33 N83-34191
- PATIENTS**  
Stretcher Patent  
[NASA-CASE-XMF-06589] c 05 N71-23159
- PATTERN RECOGNITION**  
Surface roughness detector Patent  
[NASA-CASE-XLA-00203] c 14 N70-34161  
Auditory display for the blind  
[NASA-CASE-HQN-10832-1] c 71 N74-21014

## PAYLOAD RETRIEVAL (STS)

- Simulator method and apparatus for practicing the mating of an observer-controlled object with a target  
[NASA-CASE-MFS-23052-2] c 74 N79-13855
- Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303
- PAYLOADS**  
Foam generator Patent  
[NASA-CASE-XLA-00838] c 03 N70-36778  
Spacecraft separation system for spinning vehicles and/or payloads Patent  
[NASA-CASE-XLA-02132] c 31 N71-10582  
Payload/burned-out motor case separation system Patent  
[NASA-CASE-XLA-05369] c 31 N71-15687  
Velocity package Patent  
[NASA-CASE-XLA-01339] c 31 N71-15692  
Omnidirectional multiple impact landing system Patent  
[NASA-CASE-XLA-09881] c 31 N71-16085  
Zero gravity apparatus Patent  
[NASA-CASE-XMF-06515] c 14 N71-23227  
Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609
- PCM TELEMETRY**  
Variable time constant smoothing circuit Patent  
[NASA-CASE-XGS-01983] c 10 N70-41964  
Data transfer system Patent  
[NASA-CASE-NPO-12107] c 08 N71-27255  
High speed direct binary-to-binary coded decimal converter  
[NASA-CASE-KSC-10326] c 08 N72-21197
- PEELING**  
Wire stripper  
[NASA-CASE-FRC-10111-1] c 37 N79-10419  
Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-29390
- PEENING**  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670
- PELLETS**  
Support structure for irradiated elements Patent  
[NASA-CASE-XNP-06031] c 15 N71-15606  
Contactless pellet fabrication  
[NASA-CASE-NPO-15592-1] c 71 N84-16940
- PELTIER EFFECTS**  
Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N69-25146  
Memory metal actuator — for use in electromechanical servomechanisms  
[NASA-CASE-NPO-15960-1] c 37 N83-36485
- PENETRANTS**  
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170
- PENETRATION**  
Method and device for detection of surface discontinuities or defects  
[NASA-CASE-MS-14187-1] c 35 N74-32879  
Fire extinguishing apparatus having a slidable mass for a penetrator nozzle — for penetrating aircraft and shuttle orbiter skin  
[NASA-CASE-KSC-11064-1] c 31 N81-14137
- PENETROMETERS**  
Lunar penetrometer Patent  
[NASA-CASE-XLA-00934] c 14 N71-22765  
Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420  
Soil penetrometer  
[NASA-CASE-XNP-05530] c 14 N73-32321  
Penetrometer — for determining load bearing characteristics of inclined surfaces  
[NASA-CASE-NPO-11103-1] c 35 N77-27367  
Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443
- PERCEPTION**  
Method for measuring cutaneous sensory perception  
[NASA-CASE-MS-13609-1] c 05 N72-25122
- PERFLUORO COMPOUNDS**  
Hydroxy terminated perfluoro ethers Patent  
[NASA-CASE-NPO-10768] c 06 N71-27254  
Perfluoro polyether acyl fluorides  
[NASA-CASE-NPO-10765] c 06 N72-20121  
Reaction of fluorine with polyperfluoropolyenes  
[NASA-CASE-NPO-10862] c 06 N72-22107  
Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979] c 06 N72-25151  
Polymers of perfluorobutadiene and method of manufacture  
[NASA-CASE-NPO-10863-2] c 06 N72-25152  
Polyurethane resins from hydroxy terminated perfluoro ethers  
[NASA-CASE-NPO-10768-2] c 06 N72-27144

- Polymerizable disilanol having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979-2] c 06 N73-32030  
Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides  
[NASA-CASE-MFS-22356-1] c 23 N75-30256  
Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353  
High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523  
Fluoroether modified epoxy composites  
[NASA-CASE-ARC-11418-1] c 24 N84-11213  
Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744
- PERFLUOROALKANE**  
Preparation of heterocyclic block copolymer omega-diamidoximes  
[NASA-CASE-ARC-11060-1] c 27 N79-22300
- PERFORATED PLATES**  
Process for glass coating an ion accelerator grid Patent  
[NASA-CASE-LEW-10278-1] c 15 N71-28582
- PERFORATED SHELLS**  
Method of fabricating an article with cavities — with thin bottom walls  
[NASA-CASE-LAR-10318-1] c 31 N74-18089
- PERFORMANCE PREDICTION**  
Failure detection and control means for improved drift performance of a gimbaled platform system  
[NASA-CASE-MFS-23551-1] c 04 N76-26175
- PERFORMANCE TESTS**  
Frangible electrochemical cell  
[NASA-CASE-XGS-10010] c 03 N72-15986  
Solar cell assembly test method  
[NASA-CASE-NPO-10401] c 03 N72-20033  
Linear explosive comparison  
[NASA-CASE-LAR-10800-1] c 33 N72-27959
- PERIODIC VARIATIONS**  
Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking  
[NASA-CASE-MFS-23267-1] c 35 N77-20401
- PERIPHERAL EQUIPMENT (COMPUTERS)**  
Digital interface for bi-directional communication between a computer and a peripheral device  
[NASA-CASE-MS-20258-1] c 60 N84-28492
- PERMEABILITY**  
Ionene membrane separator  
[NASA-CASE-NPO-11091] c 18 N72-22567  
System for detecting substructure microfractures and method therefore  
[NASA-CASE-NPO-14192-1] c 39 N80-10507  
Dialysis system — using ion exchange resin membranes permeable to urea molecules  
[NASA-CASE-NPO-14101-1] c 52 N80-14687  
Geological assessment probe  
[NASA-CASE-NPO-14558-1] c 46 N80-24906
- PEROXIDES**  
Method of polymerizing perfluorobutadiene Patent application  
[NASA-CASE-NPO-10447] c 06 N70-11252
- PERSPIRATION**  
Method of making a perspiration resistant biopotential electrode  
[NASA-CASE-MS-90153-2] c 05 N72-25120  
Sweat collection capsule  
[NASA-CASE-ARC-11031-1] c 52 N81-29763
- PERTURBATION**  
Gaseous control system for nuclear reactors  
[NASA-CASE-XLE-04599] c 22 N72-20597
- PERTURBATION THEORY**  
Dual wavelength scanning Doppler velocimeter — without perturbation of flow fields  
[NASA-CASE-ARC-10637-1] c 35 N75-16783
- PHASE COHERENCE**  
Signal phase estimator  
[NASA-CASE-NPO-11203] c 10 N72-20224  
Coherent receiver employing nonlinear coherence detection for carrier tracking  
[NASA-CASE-NPO-11921-1] c 32 N74-30523
- PHASE CONTRAST**  
Laser pulse detection method and apparatus  
[NASA-CASE-NPO-16030-1] c 36 N84-25037
- PHASE CONTROL**  
Rapid sync acquisition system Patent  
[NASA-CASE-NPO-10214] c 10 N71-26577  
Wideband VCO with high phase stability Patent  
[NASA-CASE-XLA-03893] c 10 N71-27271  
Induction motor control system with voltage controlled oscillator circuit  
[NASA-CASE-MFS-21465-1] c 10 N73-32145  
System for generating timing and control signals  
[NASA-CASE-NPO-13125-1] c 33 N75-19519

- Digital numerically controlled oscillator  
[NASA-CASE-MSC-16747-1] c 33 N81-17349  
Method and apparatus for self-calibration and phasing of array antenna  
[NASA-CASE-NPO-15920-1] c 32 N82-33593  
Combinational logic for generating gate drive signals for phase control rectifiers  
[NASA-CASE-MFS-25209-1] c 33 N83-10345  
System for controlled acoustic rotation of objects  
[NASA-CASE-NPO-15522-1] c 71 N83-32516
- PHASE DEMODULATORS**  
Phase demodulation system with two phase locked loops Patent  
[NASA-CASE-XNP-00777] c 10 N71-19469  
Linear phase demodulator including a phase locked loop with auxiliary feedback loop  
[NASA-CASE-GSC-12018-1] c 33 N77-14334
- PHASE DETECTORS**  
Phase detector assembly Patent  
[NASA-CASE-XMF-00701] c 09 N70-40272  
Bi-polar phase detector and corrector for split phase PCM data signals Patent  
[NASA-CASE-XGS-01590] c 07 N71-12392  
High speed phase detector Patent  
[NASA-CASE-XNP-01306-2] c 09 N71-24596  
Phase protection system for ac power lines  
[NASA-CASE-MSC-17832-1] c 33 N74-14956  
Low distortion automatic phase control circuit — voltage controlled phase shifter  
[NASA-CASE-MFS-21671-1] c 33 N74-22885  
Correlation type phase detector — with time correlation integrator for frequency multiplexed signals  
[NASA-CASE-GSC-11744-1] c 33 N75-26243  
Impact position detector for outer space particles  
[NASA-CASE-GSC-11829-1] c 35 N75-27331  
Frequency discriminator and phase detector circuit  
[NASA-CASE-NPO-11515-1] c 33 N77-13315  
Phase substitution of spare converter for a failed one of parallel phase staggered converters  
[NASA-CASE-NPO-13812-1] c 33 N77-30365  
Apparatus and method for stabilized phase detection for binary signal tracking loops  
[NASA-CASE-MSC-16461-1] c 33 N79-11313  
High stability buffered phase comparator  
[NASA-CASE-GSC-12645-1] c 33 N84-16454  
Three phase power factor controller  
[NASA-CASE-MFS-25535-2] c 33 N84-22885  
Method and apparatus for receiving and tracking phase modulated signals  
[NASA-CASE-MSC-16170-2] c 32 N84-27952  
Phase detector for three-phase power factor controller  
[NASA-CASE-MFS-25834-1] c 33 N84-27975
- PHASE DEVIATION**  
System for stabilizing cable phase delay utilizing a coaxial cable under pressure  
[NASA-CASE-NPO-13138-1] c 33 N74-17927
- PHASE LOCK DEMODULATORS**  
Compensating bandwidth switching transients in an amplifier circuit Patent  
[NASA-CASE-XNP-01107] c 10 N71-28859
- PHASE LOCKED SYSTEMS**  
Automatic acquisition system for phase-lock loop  
[NASA-CASE-XGS-04994] c 09 N69-21543  
Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680  
Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent  
[NASA-CASE-XMF-08665] c 10 N71-19467  
Burst synchronization detection system Patent  
[NASA-CASE-XMS-05605-1] c 10 N71-19468  
Phase demodulation system with two phase locked loops Patent  
[NASA-CASE-XNP-00777] c 10 N71-19469  
Diversity receiving system with diversity phase lock Patent  
[NASA-CASE-XGS-01222] c 10 N71-20841  
Phase locked phase modulator including a voltage controlled oscillator Patent  
[NASA-CASE-XNP-05382] c 10 N71-23544  
Video sync processor Patent  
[NASA-CASE-KSC-10002] c 10 N71-25865  
Transition tracking bit synchronization system  
[NASA-CASE-NPO-10844] c 07 N72-20140  
Data-aided carrier tracking loops  
[NASA-CASE-NPO-11282] c 10 N73-16205  
Filter for third order phase locked loops  
[NASA-CASE-NPO-11941-1] c 10 N73-27171  
Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier  
[NASA-CASE-NPO-11593-1] c 07 N73-28012  
Automatic carrier acquisition system  
[NASA-CASE-NPO-11628-1] c 07 N73-30113  
Digital second-order phase-locked loop  
[NASA-CASE-NPO-11905-1] c 33 N74-12887
- Phase-locked servo system — for synchronizing the rotation of slip ring assembly  
[NASA-CASE-MFS-22073-1] c 33 N75-13139  
Low speed phase-lock speed control system — for brushless dc motor  
[NASA-CASE-GSC-11127-1] c 09 N75-24758  
Digital phase-locked loop  
[NASA-CASE-GSC-11623-1] c 33 N75-25040  
Telemetry synchronizer  
[NASA-CASE-GSC-11868-1] c 17 N76-22245  
Linear phase demodulator including a phase locked loop with auxiliary feedback loop  
[NASA-CASE-GSC-12018-1] c 33 N77-14334  
Frequency translating phase conjugation circuit for active retrodirective antenna array — microwave transmission  
[NASA-CASE-NPO-14536-1] c 32 N81-14185  
PN lock indicator for dithered PN code tracking loop  
[NASA-CASE-NPO-14435-1] c 33 N81-33405  
Discriminator aided phase lock acquisition for suppressed carrier signals  
[NASA-CASE-NPO-14311-1] c 33 N82-29539  
Pulsed phase locked loop strain monitor — voltage controlled oscillators  
[NASA-CASE-LAR-12772-1] c 33 N83-16626  
Apparatus and method for tracking the fundamental frequency of an analog input signal  
[NASA-CASE-ARC-11367-1] c 33 N83-21238
- PHASE MODULATION**  
Phase quadrature-plural channel data transmission system Patent  
[NASA-CASE-XAC-06302] c 08 N71-19763  
Adaptive tracking notch filter system Patent  
[NASA-CASE-XMF-01892] c 10 N71-22986  
Phase locked phase modulator including a voltage controlled oscillator Patent  
[NASA-CASE-XNP-05382] c 10 N71-23544  
Phase multiplying electronic scanning system Patent  
[NASA-CASE-NPO-10302] c 10 N71-26142  
Phase modulator Patent  
[NASA-CASE-MSC-13201-1] c 07 N71-28429  
Two carrier communication system with single transmitter  
[NASA-CASE-NPO-11548] c 07 N73-26118  
Decision feedback loop for tracking a polyphase modulated carrier  
[NASA-CASE-NPO-13103-1] c 32 N74-20811  
Modulator for tone and binary signals — phase of modulation of tone and binary signals on carrier waves in communication systems  
[NASA-CASE-GSC-11743-1] c 32 N75-24981  
Phase modulating with odd and even finite power series of a modulating signal  
[NASA-CASE-LAR-11607-1] c 32 N77-14292  
Swept group delay measurement  
[NASA-CASE-NPO-13909-1] c 33 N78-25319  
Quadrature demodulation  
[NASA-CASE-GSC-12137-1] c 33 N78-32338  
Closed Loop solar array-ion thruster system with power control circuitry  
[NASA-CASE-LEW-12780-1] c 20 N79-20179  
Baseband signal combiner for large aperture antenna array  
[NASA-CASE-NPO-14641-1] c 32 N81-29308  
Doppler radar having phase modulation of both transmitted and reflected return signals  
[NASA-CASE-MSC-18675-1] c 32 N84-22820  
Method and apparatus for receiving and tracking phase modulated signals  
[NASA-CASE-MSC-16170-2] c 32 N84-27952  
Integrating IR detector imaging systems  
[NASA-CASE-NPO-15805-1] c 74 N84-28590
- PHASE SHIFT**  
Bi-polar phase detector and corrector for split phase PCM data signals Patent  
[NASA-CASE-XGS-01590] c 07 N71-12392  
Electromagnetic polarization systems and methods Patent  
[NASA-CASE-GSC-10021-1] c 09 N71-24595  
Method and apparatus for frequency-division multiplex communications by digital phase shift of carrier  
[NASA-CASE-NPO-11338] c 08 N72-25208  
Time domain phase measuring apparatus  
[NASA-CASE-GSC-12228-1] c 33 N79-10338  
Phase-angle controller for Stirling engines  
[NASA-CASE-NPO-14388-1] c 37 N81-17432
- PHASE SHIFT CIRCUITS**  
Gyrator type circuit Patent  
[NASA-CASE-XAC-10608-1] c 09 N71-12517  
Phase shift circuit apparatus  
[NASA-CASE-ARC-10269-1] c 10 N72-16172  
Continuously variable voltage controlled phase shifter  
[NASA-CASE-NPO-11129] c 09 N72-33204  
Induction motor control system with voltage controlled oscillator circuit  
[NASA-CASE-MFS-21465-1] c 10 N73-32145
- Low distortion automatic phase control circuit — voltage controlled phase shifter  
[NASA-CASE-MFS-21671-1] c 33 N74-22885  
Pseudonoise code tracking loop  
[NASA-CASE-MSC-18035-1] c 32 N81-15179  
Fiber optic transmission line stabilization apparatus and method  
[NASA-CASE-NPO-15036-1] c 74 N82-19029
- PHASE SHIFT KEYING**  
Decision feedback loop for tracking a polyphase modulated carrier  
[NASA-CASE-NPO-13103-1] c 32 N74-20811  
Differential phase shift keyed communication system  
[NASA-CASE-MSC-14065-1] c 32 N74-26654  
Differential phase shift keyed signal resolver  
[NASA-CASE-MSC-14066-1] c 33 N74-27705  
Unbalanced quadriphase demodulator  
[NASA-CASE-MSC-14840-1] c 32 N77-24331  
Method and apparatus for quadriphase-shift-key and linear phase modulation  
[NASA-CASE-NPO-14444-1] c 33 N81-15192  
Digital demodulator  
[NASA-CASE-LAR-12659-1] c 33 N82-26570
- PHASE SWITCHING INTERFEROMETERS**  
Radar antenna system for acquisition and tracking Patent  
[NASA-CASE-XMS-09610] c 07 N71-24625
- PHASE TRANSFORMATIONS**  
Slug flow magnetohydrodynamic generator  
[NASA-CASE-XLE-02083] c 03 N69-39983  
Fluid dispensing apparatus and method Patent  
[NASA-CASE-XLE-01182] c 27 N71-15635
- PHASE VELOCITY**  
Ultrasonic calibration device — for producing changes in acoustic attenuation and phase velocity  
[NASA-CASE-LAR-11435-1] c 35 N76-15432
- PHASED ARRAYS**  
Phase control circuits using frequency multiplications for phased array antennas  
[NASA-CASE-ERC-10285] c 10 N73-16206  
Phased array antenna control  
[NASA-CASE-MSC-14939-1] c 32 N79-11264  
Phase conjugation method and apparatus for an active retrodirective antenna array  
[NASA-CASE-NPO-13641-1] c 32 N79-24210  
Coaxial phased array antenna  
[NASA-CASE-MSC-16800-1] c 32 N81-14187  
Spiral slotted phased antenna array  
[NASA-CASE-MSC-18532-1] c 32 N82-27558  
Method and apparatus for self-calibration and phasing of array antenna  
[NASA-CASE-NPO-15920-1] c 32 N82-33593  
Electronic conscaning spacecraft communication system  
[NASA-CASE-NPO-15899-1] c 32 N83-19970
- PHENOLIC EPOXY RESINS**  
Phenoxyl resins containing pendent ethynyl groups and cured resins therefrom  
[NASA-CASE-LAR-13262-1] c 27 N84-24805
- PHENOLIC RESINS**  
Bonding method in the manufacture of continuous regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260
- PHENOLS**  
Novel polymers and method of preparing same  
[NASA-CASE-NPO-10998-1] c 06 N73-32029  
Method and device for the detection of phenol and related compounds — in an electrochemical cell  
[NASA-CASE-LEW-12513-1] c 25 N79-22235
- PHENYLS**  
The 1,1,1-triaryl-2,2,2-trifluoroethanes and process for their synthesis  
[NASA-CASE-ARC-11097-1] c 25 N82-24312
- PHONOCARDIOGRAPHY**  
Phonocardiogram simulator Patent  
[NASA-CASE-XKS-10804] c 05 N71-24606  
Vibrophonocardiograph Patent  
[NASA-CASE-XFR-07172] c 05 N71-27234
- PHOSPHATES**  
Thermal control coating Patent  
[NASA-CASE-XLA-01995] c 18 N71-23047
- PHOSPHAZENE**  
Process for the preparation of polycarbonylphosphazenes — thermal insulation  
[NASA-CASE-ARC-11176-2] c 27 N81-27271  
Carbonylcyclotriphosphazenes and their polymers — thermal insulation  
[NASA-CASE-ARC-11176-1] c 27 N82-18389  
Carbonylmethylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750
- PHOSPHINES**  
Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-1] c 27 N78-32256



Compound oxidized styrylphosphine — flame resistant vinyl polymers  
[NASA-CASE-MSC-14903-2] c 27 N80-10358

Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-3] c 27 N80-24438

Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854

Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322

**PHOSPHONITRILES**  
Metal containing polymers from cyclic tetrameric phenylphosphonitrimides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363

**PHOSPHORS**  
High contrast cathode ray tube  
[NASA-CASE-ERC-10468] c 09 N72-20206

Thin wire pointing method  
[NASA-CASE-NPO-15789-1] c 31 N83-19947

**PHOSPHORUS**  
Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019

**PHOSPHORUS COMPOUNDS**  
Phosphorus-containing bisimide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272

**PHOSPHORUS POLYMERS**  
Process for the preparation of polycarbonylphosphazenes — thermal insulation  
[NASA-CASE-ARC-11176-2] c 27 N81-27271

Carboranylphosphazenes and their polymers — thermal insulation  
[NASA-CASE-ARC-11176-1] c 27 N82-18389

**PHOTOABSORPTION**  
Photomechanical transducer  
[NASA-CASE-NPO-14363-1] c 39 N81-25400

**PHOTOCATHODES**  
Photoelectric energy spectrometer Patent  
[NASA-CASE-XNP-04161] c 14 N71-15599

III-V photocathode with nitrogen doping for increased quantum efficiency  
[NASA-CASE-NPO-12134-1] c 33 N78-31409

**PHOTOCHEMICAL REACTIONS**  
Apparatus for photon excited catalysis  
[NASA-CASE-NPO-13566-1] c 25 N77-32255

Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field  
[NASA-CASE-LEW-12465-1] c 25 N78-25148

Violet process for producing flame resistant polyamides and products produced thereby — protective clothing for high oxygen environments  
[NASA-CASE-MSC-16074-1] c 27 N80-26446

**PHOTOCONDUCTIVE CELLS**  
Two-dimensional radiant energy array computers and computing devices  
[NASA-CASE-GSC-11839-1] c 60 N77-14751

Plural output optometric sample cell and analysis system  
[NASA-CASE-NPO-10233-1] c 74 N78-33913

Photocapacitive image converter  
[NASA-CASE-LAR-12513-1] c 44 N82-32841

**PHOTOCONDUCTIVITY**  
Photoetching of metal-oxide layers  
[NASA-CASE-ERC-10108] c 06 N72-21094

**PHOTOCONDUCTORS**  
Electronic divider and multiplier using photocells Patent  
[NASA-CASE-XFR-05637] c 09 N71-19480

**PHOTODIODES**  
Shock isolator for operating a diode laser on a closed-cycle refrigerator  
[NASA-CASE-GSC-12297-1] c 37 N79-28549

**PHOTODISSOCIATION**  
Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field  
[NASA-CASE-LEW-12465-1] c 25 N78-25148

**PHOTOELECTRIC CELLS**  
Sun tracker with rotatable plane-parallel plate and two photocells Patent  
[NASA-CASE-XGS-01159] c 21 N71-10678

Method of and device for determining the characteristics and flux distribution of micrometeorites — scanning puncture holes in sheet material with photoelectric cell  
[NASA-CASE-NPO-12127-1] c 91 N74-13130

Noncontacting method for measuring angular deflection  
[NASA-CASE-LAR-12178-1] c 74 N80-21138

Photoelectric detection system — manufacturing automation  
[NASA-CASE-MFS-23776-1] c 33 N82-28545

**PHOTOELECTRIC EFFECT**  
Photoelectric energy spectrometer Patent  
[NASA-CASE-XNP-04161] c 14 N71-15599

**PHOTOELECTRIC EMISSION**

High resolution threshold photoelectron spectroscopy by electron attachment  
[NASA-CASE-NPO-14078-1] c 72 N80-14877

**PHOTOELECTRIC GENERATORS**

Solar energy converter using surface plasma waves  
[NASA-CASE-LEW-13827-1] c 44 N83-26258

**PHOTOELECTRIC MATERIALS**

Light radiation direction indicator with a baffle of two parallel grids  
[NASA-CASE-XNP-03930] c 14 N69-24331

**PHOTOELECTRICITY**

Use of thin film light detector  
[NASA-CASE-NPO-11432-2] c 35 N74-15090

Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019

**PHOTOELECTRICITY**

Liquid crystal light valve structures  
[NASA-CASE-MSC-20038-1] c 76 N84-22457

Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019

**PHOTOELECTROCHEMICAL DEVICES**

Method for determining the point of zero zeta potential of semiconductor materials  
[NASA-CASE-LAR-12893-1] c 33 N82-26573

Photoelectrochemical electrodes  
[NASA-CASE-NPO-15458-1] c 25 N84-12262

**PHOTOELECTRON SPECTROSCOPY**

Photoelectron spectrometer with means for stabilizing sample surface potential  
[NASA-CASE-NPO-13772-1] c 35 N78-10429

High resolution threshold photoelectron spectroscopy by electron attachment  
[NASA-CASE-NPO-14078-1] c 72 N80-14877

Low intensity X-ray and gamma-ray spectrometer  
[NASA-CASE-GSC-12587-1] c 35 N82-32659

**PHOTOGRAPHIC EMULSIONS**

Method for applying photographic resists to otherwise incompatible substrates  
[NASA-CASE-MSC-18107-1] c 27 N81-25209

Method for retarding dye fading during archival storage of developed color photographic film — inert atmosphere  
[NASA-CASE-MFS-23250-1] c 35 N82-11432

**PHOTOGRAPHIC EQUIPMENT**

Apparatus and method for protecting a photographic device Patent  
[NASA-CASE-NPO-10174] c 14 N71-18465

Method of treating the surface of a glass member  
[NASA-CASE-GSC-12110-1] c 27 N77-32308

System for forming a quadrified image comprising angularly related fields of view of a three dimensional object  
[NASA-CASE-NPO-14219-1] c 74 N81-17886

**PHOTOGRAPHIC FILM**

Film feed camera having a detent means Patent  
[NASA-CASE-LAR-10688] c 14 N71-28935

Exposure interlock for oscilloscope cameras  
[NASA-CASE-LAR-10319-1] c 14 N73-32322

Optical noise suppression device and method — laser light exposing film  
[NASA-CASE-MSC-12640-1] c 74 N76-31998

Selective image area control of X-ray film exposure density  
[NASA-CASE-NPO-13808-1] c 35 N78-15461

Method for retarding dye fading during archival storage of developed color photographic film — inert atmosphere  
[NASA-CASE-MFS-23250-1] c 35 N82-11432

**PHOTOGRAPHIC MEASUREMENT**  
Means and method of measuring viscoelastic strain Patent  
[NASA-CASE-XNP-01153] c 32 N71-17645

Impact measuring technique  
[NASA-CASE-LAR-10913] c 14 N72-16282

TV fatigue crack monitoring system  
[NASA-CASE-LAR-11490-1] c 39 N78-16387

**PHOTOGRAPHIC PROCESSING**

Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932

Method of obtaining intensified image from developed photographic films and plates  
[NASA-CASE-MFS-23461-1] c 35 N79-10389

**PHOTOGRAPHIC PROCESSING EQUIPMENT**

Drying apparatus for photographic sheet material  
[NASA-CASE-GSC-11074-1] c 14 N73-28489

**PHOTOGRAPHIC RECORDING**

Method of obtaining permanent record of surface flow phenomena Patent  
[NASA-CASE-XLA-01353] c 14 N70-41366

Focused image holography with extended sources Patent  
[NASA-CASE-ERC-10019] c 16 N71-15551

**Recording and reconstructing focused image holograms**

Patent  
[NASA-CASE-ERC-10017] c 16 N71-15567

Method and means for recording and reconstructing holograms without use of a reference beam Patent  
[NASA-CASE-ERC-10020] c 16 N71-26154

Multiple image storing system for high speed projectile holography  
[NASA-CASE-MFS-20596] c 14 N72-17324

Phototropic composition of matter  
[NASA-CASE-XGS-03736] c 14 N72-22443

Method for determining thermo-physical properties of specimens — photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel  
[NASA-CASE-LAR-11053-1] c 25 N74-18551

**PHOTOGRAPHY**

System for forming a quadrified image comprising angularly related fields of view of a three dimensional object  
[NASA-CASE-NPO-14219-1] c 74 N81-17886

X-ray determination of parts alignment  
[NASA-CASE-MSC-20418-1] c 37 N83-17882

**PHOTOIONIZATION**

A multichannel photoionization chamber for absorption analysis Patent  
[NASA-CASE-ERC-10044-1] c 14 N71-27090

**PHOTOLYSIS**

Solar photolysis of water  
[NASA-CASE-NPO-13675-1] c 44 N77-32580

Solar photolysis of water  
[NASA-CASE-NPO-14126-1] c 44 N79-11470

**PHOTOMAPPING**

Window defect planar mapping technique  
[NASA-CASE-MSC-19442-1] c 74 N77-10899

**PHOTOMASKS**

Method for applying photographic resists to otherwise incompatible substrates  
[NASA-CASE-MSC-18107-1] c 27 N81-25209

**PHOTOMECHANICAL EFFECT**

Photomechanical transducer  
[NASA-CASE-NPO-14363-1] c 39 N81-25400

**PHOTOMETERS**

Interferometer direction sensor Patent  
[NASA-CASE-NPO-10320] c 14 N71-17655

Method and device for determining battery state of charge Patent  
[NASA-CASE-NPO-10194] c 03 N71-20407

Light position locating system Patent  
[NASA-CASE-XNP-01059] c 23 N71-21821

Fluid flow meter with comparator reference means Patent  
[NASA-CASE-XGS-01331] c 14 N71-22996

Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409

**Infrared detectors**

[NASA-CASE-LAR-10728-1] c 14 N73-12445

Chromato-fluorographic drug detector — device for detecting and recording fluorescent properties of materials  
[NASA-CASE-ARC-10633-1] c 25 N74-26947

The 2 deg/90 deg laboratory scattering photometer — particulate refractivity in hydrosols  
[NASA-CASE-GSC-12088-1] c 74 N78-13874

Magneto-optic detection system with noise cancellation  
[NASA-CASE-NPO-11954-1] c 35 N78-29421

**PHOTOMICROGRAPHY**

Stereo photomicrography system  
[NASA-CASE-LAR-10176-1] c 14 N72-20380

Hand-held photomicroscope  
[NASA-CASE-ARC-10468-1] c 14 N73-33361

**PHOTOMULTIPLIER TUBES**

Canopus detector including automotive gain control of photomultiplier tube Patent  
[NASA-CASE-XNP-03914] c 21 N71-10771

Electronic divider and multiplier using photocells Patent  
[NASA-CASE-XFR-05637] c 09 N71-19480

Coincidence apparatus for detecting particles  
[NASA-CASE-XLA-07813] c 14 N72-17328

Method and apparatus for mapping the sensitivity of the face of a photodetector specifically a PMT  
[NASA-CASE-LAR-10320-1] c 09 N72-23172

Light direction sensor  
[NASA-CASE-NPO-11201] c 14 N72-27409

Photomultiplier circuit including means for rapidly reducing the sensitivity thereof — and protection from radiation damage  
[NASA-CASE-ARC-10593-1] c 33 N74-27682

**PHOTON BEAMS**

Apparatus for photon excited catalysis  
[NASA-CASE-NPO-13566-1] c 25 N77-32255



**PHOTON-ELECTRON INTERACTION**

Means and method for calibrating a photon detector utilizing electron-photon coincidence  
[NASA-CASE-NPO-15644-1] c 35 N84-33767

**PHOTONS**

Solar cell collector  
[NASA-CASE-LEW-12552-1] c 44 N78-25527  
Means and method for calibrating a photon detector utilizing electron-photon coincidence  
[NASA-CASE-NPO-15644-1] c 35 N84-33767

**PHOTOSENSITIVITY**

Photosensitive device to detect bearing deviation Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089  
Solar optical telescope dome control system Patent  
[NASA-CASE-MSC-10966] c 14 N71-19568  
Method and apparatus for mapping the sensitivity of the face of a photodetector specifically a PMT  
[NASA-CASE-LAR-10320-1] c 09 N72-23172  
Holography utilizing surface plasmon resonances  
[NASA-CASE-MFS-22040-1] c 35 N74-26946  
Apparatus for calibrating an image dissector tube  
[NASA-CASE-MFS-22208-1] c 33 N75-26244

Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019

**PHOTOTRANSISTORS**

Phototransistor imaging system  
[NASA-CASE-MFS-20809] c 23 N73-13660  
Phototransistor  
[NASA-CASE-MFS-20407] c 09 N73-19235

**PHOTOTROPISM**

Phototropic composition of matter  
[NASA-CASE-XGS-03736] c 14 N72-22443

**PHOTOVISCOELASTICITY**

Means and method of measuring viscoelastic strain Patent  
[NASA-CASE-XNP-01153] c 32 N71-17645

**PHOTOVOLTAIC CELLS**

Plurality of photosensitive cells on a pyramidal base for planetary trackers  
[NASA-CASE-XNP-04180] c 07 N69-39736  
Light sensitive digital aspect sensor Patent  
[NASA-CASE-XGS-00359] c 14 N70-34158  
Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent  
[NASA-CASE-NPO-10373] c 03 N71-18698  
Use of thin film light detector  
[NASA-CASE-NPO-11432-2] c 35 N74-15090  
Photovoltaic cell array  
[NASA-CASE-MFS-22458-1] c 44 N77-10635  
Solar cells having integral collector grids  
[NASA-CASE-LEW-12819-1] c 44 N79-11467  
Double-sided solar cell package  
[NASA-CASE-NPO-14199-1] c 44 N79-25482  
Method of construction of a multi-cell solar array  
[NASA-CASE-MFS-23540-1] c 44 N79-26475  
Solar cell with improved N-region contact and method of forming the same  
[NASA-CASE-NPO-14205-1] c 44 N79-31752  
Method of fabricating a photovoltaic module of a substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550  
Copper doped polycrystalline silicon solar cell  
[NASA-CASE-NPO-14670-1] c 44 N81-19558  
Efficiency of silicon solar cells containing chromium  
[NASA-CASE-NPO-15179-1] c 44 N82-26777  
Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709  
High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31764  
Heat transparent high intensity high efficiency solar cell  
[NASA-CASE-LEW-12892-1] c 44 N83-14692  
Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311  
Method of making macrocrystalline or single crystal semiconductive material and products produced thereby --- epitaxial substrates using low melting materials for photovoltaic cells  
[NASA-CASE-NPO-15904-1] c 76 N83-21993  
GaAs Schottky barrier photo-responsive device and method of fabrication --- photovoltaic cells  
[NASA-CASE-GSC-12816-1] c 76 N83-30268  
Cloud cover sensor  
[NASA-CASE-NPO-14936-1] c 47 N83-32232  
Increased voltage photovoltaic cell  
[NASA-CASE-NPO-16155-1] c 44 N84-20917  
Thermionic-photovoltaic energy converter  
[NASA-CASE-LEW-14077-1] c 44 N84-20918  
Process and apparatus for growing a crystal ribbon  
[NASA-CASE-NPO-15629-1] c 76 N84-35113

**PHOTOVOLTAIC CONVERSION**

Thermionic-photovoltaic energy converter  
[NASA-CASE-LEW-14077-1] c 44 N84-20918

Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019

**PHOTOVOLTAIC EFFECT**

System for improving signal-to-noise ratio of a communication signal Patent Application  
[NASA-CASE-MSC-12259-1] c 07 N70-12616  
Use of thin film light detector  
[NASA-CASE-NPO-11432-2] c 35 N74-15090

**PHthalOCYANIN**

Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275  
Metal phthalocyanine polymers  
[NASA-CASE-ARC-11405-1] c 27 N84-27884

**PHYSICAL EXERCISE**

Restraint system for ergometer  
[NASA-CASE-MFS-21048-1] c 14 N73-27377  
Tilting table for ergometer and for other biomedical devices  
[NASA-CASE-MFS-21010-1] c 05 N73-30078  
Manual actuator --- for spacecraft exercising machines  
[NASA-CASE-MFS-21481-1] c 37 N74-18127  
Therapeutic hand exerciser  
[NASA-CASE-LAR-11667-1] c 52 N76-19785

**PHYSICAL PROPERTIES**

Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099  
System for monitoring physical characteristics of fluids  
[NASA-CASE-NPO-15400-1] c 34 N83-31993

**PHYSIOLOGICAL EFFECTS**

Restraint torso for a pressurized suit  
[NASA-CASE-MSC-12397-1] c 05 N72-25119

**PHYSIOLOGICAL TESTS**

Vibrophonocardiograph Patent  
[NASA-CASE-XFR-07172] c 05 N71-27234  
Medical subject monitoring systems --- multichannel monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757

**PHYSIOLOGY**

Phonocardiograph transducer Patent  
[NASA-CASE-XMS-05365] c 14 N71-22993  
Method of detecting and counting bacteria  
[NASA-CASE-GSC-11917-2] c 51 N76-29891

**PIERCING**

Pressurized cell micrometeoroid detector Patent  
[NASA-CASE-XLA-00936] c 14 N71-14996

**PIEZOELECTRIC CRYSTALS**

Miniature stress transducer Patent  
[NASA-CASE-XNP-02983] c 14 N71-21091  
Ultra-stable oscillator with complementary transistors  
[NASA-CASE-GSC-11513-1] c 33 N74-20862  
CDS solid state phase insensitive ultrasonic transducer --- annealing dardium sulfide crystals  
[NASA-CASE-LAR-12304-1] c 35 N80-20559

**PIEZOELECTRIC TRANSDUCERS**

Force transducer Patent  
[NASA-CASE-XAC-01101] c 14 N70-41957  
Microbalance including crystal oscillators for measuring contaminants in a gas system Patent  
[NASA-CASE-NPO-10144] c 14 N71-17701  
Phonocardiograph transducer Patent  
[NASA-CASE-XMS-05365] c 14 N71-22993  
Semiconductor transducer device  
[NASA-CASE-ERC-10087-2] c 14 N72-31446  
Length mode piezoelectric ultrasonic transducer for inspection of solid objects  
[NASA-CASE-MSC-19672-1] c 38 N79-14398  
Piezoelectric deicing device  
[NASA-CASE-LEW-13773-2] c 35 N84-32782

**PIEZOELECTRICITY**

Missile stage separation indicator and stage initiator Patent  
[NASA-CASE-XLA-00791] c 03 N70-39930  
Piezoelectric pump Patent  
[NASA-CASE-XNP-05429] c 26 N71-21824  
Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334  
Piezoelectric composite materials  
[NASA-CASE-LEW-12582-1] c 76 N83-34796

**PIEZORESISTIVE TRANSDUCERS**

Miniature stress transducer Patent  
[NASA-CASE-XNP-02983] c 14 N71-21091  
Transverse piezoresistance and pinch effect electromechanical transducers Patent  
[NASA-CASE-ERC-10088] c 26 N71-25490

**PIGMENTS**

Stabilized zinc oxide coating compositions Patent  
[NASA-CASE-XMF-07770-2] c 18 N71-26772  
Diffusely reflecting paints including polytetrafluoroethylene and method of manufacture  
[NASA-CASE-GSC-12883-1] c 27 N84-24806

**PILOT TRAINING**

Controlled visibility device for an aircraft Patent  
[NASA-CASE-XFR-04147] c 11 N71-10748  
Kinesthetic control simulator --- for pilot training  
[NASA-CASE-LAR-10276-1] c 09 N75-15662

**PILOTS (PERSONNEL)**

System for indicating direction of intruder aircraft  
[NASA-CASE-ERC-10226-1] c 14 N73-16483

**PINCH EFFECT**

Toggle mechanism for pinching metal tubes  
[NASA-CASE-GSC-12274-1] c 37 N79-28550

**PINS**

Fatigue-resistant shear pin  
[NASA-CASE-XLA-09122] c 15 N69-27505  
Turbo-machine blade vibration damper Patent  
[NASA-CASE-XLE-00155] c 28 N71-29154  
Safety-type locking pin  
[NASA-CASE-MFS-18495] c 15 N72-11385

**PINTLES**

Metal valve pintle with encapsulated elastomeric body Patent  
[NASA-CASE-MSC-12116-1] c 15 N71-17648

**PIPE FLOW**

Flat-plate heat pipe  
[NASA-CASE-GSC-11998-1] c 34 N77-32413

**PIPELINES**

Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937

**PIPELINING (COMPUTERS)**

Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter  
[NASA-CASE-NPO-15519-1] c 32 N84-34651

**PIPES (TUBES)**

Device for determining the accuracy of the flare on a flared tube  
[NASA-CASE-XKS-03495] c 14 N69-39785  
Piping arrangement through a double chamber structure  
[NASA-CASE-XNP-08882] c 15 N69-39935  
Foldable conduit Patent  
[NASA-CASE-XLE-00620] c 32 N70-41579  
Thermobulb mount Patent  
[NASA-CASE-NPO-10158] c 33 N71-16356  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114] c 15 N71-17650  
Sealed separable connection Patent  
[NASA-CASE-NPO-10064] c 15 N71-17693  
Electrical switching device Patent  
[NASA-CASE-NPO-10037] c 09 N71-19610  
Tube dimpling tool Patent  
[NASA-CASE-XMS-06876] c 15 N71-21536  
Plasma device feed system Patent  
[NASA-CASE-XLE-02902] c 25 N71-21694  
Spin forming tubular elbows Patent  
[NASA-CASE-XMF-01083] c 15 N71-22723  
Portable milling tool Patent  
[NASA-CASE-XMF-03511] c 15 N71-22799  
Internal flare angle gauge Patent  
[NASA-CASE-XMF-04415] c 14 N71-24693  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-3] c 15 N71-24865  
Weld preparation machine Patent  
[NASA-CASE-XKS-07953] c 15 N71-26134  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-26148  
Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27191  
Tube fabricating process  
[NASA-CASE-LAR-10203-1] c 15 N72-16330  
Torsional disconnect unit  
[NASA-CASE-NPO-10704] c 15 N72-20445  
Open type urine receptacle  
[NASA-CASE-MSC-12324-1] c 05 N72-22093  
Method for measuring cutaneous sensory perception  
[NASA-CASE-MSC-13609-1] c 05 N72-25122  
Low mass truss structure  
[NASA-CASE-LAR-10548-1] c 11 N72-25287  
Honeycomb panels formed of minimal surface periodic tubule layers  
[NASA-CASE-ERC-10384] c 18 N72-25540  
Honeycomb core structures of minimal surface tubule sections  
[NASA-CASE-ERC-10383] c 18 N72-25541  
Method for distillation of liquids  
[NASA-CASE-XNP-08124-2] c 06 N73-13129  
Cable restraint  
[NASA-CASE-LAR-10129-1] c 15 N73-25512  
Method of fabricating a twisted composite superconductor  
[NASA-CASE-LEW-11015] c 26 N73-32571  
Open tube guideway for high speed air cushioned vehicles  
[NASA-CASE-LAR-10258-1] c 85 N74-34672  
Method for fabricating a mass spectrometer inlet leak  
[NASA-CASE-GSC-12077-1] c 35 N77-24455  
Precision heat forming of tetrafluoroethylene tubing  
[NASA-CASE-MSC-18430-1] c 37 N82-24491

## PISTON ENGINES

- Open ended tubing cutters  
[NASA-CASE-MSC-18538-1] c 37 N82-26672
- Method of making an ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095
- Tubing and cable cutting tool  
[NASA-CASE-LAR-12766-1] c 37 N84-28085

## PISTON ENGINES

- Stirling cycle engine and refrigeration systems  
[NASA-CASE-NPO-13613-1] c 37 N76-29590
- Hot gas engine with dual crankshafts  
[NASA-CASE-NPO-14221-1] c 37 N81-25370
- Solar engine  
[NASA-CASE-LAR-12148-1] c 44 N82-24640
- Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574

## PISTONS

- Automatic pump Patent  
[NASA-CASE-XNP-04731] c 15 N71-24042
- Firefly pump-metering system  
[NASA-CASE-GSC-10218-1] c 15 N72-21485
- Collapsible pistons  
[NASA-CASE-MSC-13789-1] c 11 N73-32152
- Airflow control system for supersonic inlets  
[NASA-CASE-LEW-11188-1] c 02 N74-20646
- Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-1] c 37 N79-23431
- Free-piston regenerative hot gas hydraulic engine  
[NASA-CASE-LEW-12274-1] c 37 N80-31790
- Power control for hot gas engines  
[NASA-CASE-NPO-14220-1] c 37 N81-14318
- Multiple plate hydrostatic viscous damper  
[NASA-CASE-LEW-12445-1] c 37 N81-22360
- Stirling cycle cryogenic cooler --- magnetically suspended pistons  
[NASA-CASE-GSC-12697-1] c 31 N82-11312
- Gas-to-hydraulic power converter  
[NASA-CASE-MSC-18794-1] c 44 N83-14693
- Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153
- Reciprocating magnetic refrigerator employing tandem porous matrices within a reciprocating displacer  
[NASA-CASE-NPO-16257-1] c 31 N84-24830
- Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-2] c 37 N84-28081

## PITCH (INCLINATION)

- Reverse pitch fan with divided splitter  
[NASA-CASE-LEW-12760-1] c 07 N77-17059
- Velocity vector control system augmented with direct lift control  
[NASA-CASE-LAR-12268-1] c 08 N81-24106
- Pitch attitude stabilization system utilizing engine pressure ratio feedback signals  
[NASA-CASE-LAR-12562-1] c 08 N81-26152

## PIVOTS

- Tension measurement device Patent  
[NASA-CASE-XMS-04545] c 15 N71-22878
- Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098
- Self-locking telescoping manipulator arm  
[NASA-CASE-MFS-25906-1] c 54 N84-11761
- Unidirectional flexural pivot  
[NASA-CASE-GSC-12622-1] c 37 N84-12492

## PLANAR STRUCTURES

- Window defect planar mapping technique  
[NASA-CASE-MSC-19442-1] c 74 N77-10899
- Method and apparatus for preparing multiconductor cable with flat conductors  
[NASA-CASE-MFS-10946-1] c 31 N79-21226
- High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31764

## PLANE WAVES

- Multiple reflection conical microwave antenna  
[NASA-CASE-NPO-11661] c 07 N73-14130

## PLANETARY ATMOSPHERES

- Method of planetary atmospheric investigation using a split-trajectory dual flyby mode Patent  
[NASA-CASE-XAC-08494] c 30 N71-15990
- Flow field simulation Patent  
[NASA-CASE-LAR-11138] c 12 N71-20436
- Ablation sensor Patent  
[NASA-CASE-XLA-01791] c 14 N71-22991

## PLANETARY GRAVITATION

- Impact simulator Patent  
[NASA-CASE-XLA-00493] c 11 N70-34786
- Means for visually indicating flight paths of vehicles between the Earth, Venus, and Mercury Patent  
[NASA-CASE-XNP-00708] c 14 N70-35394

## PLANETARY LANDING

- Parachute glider Patent  
[NASA-CASE-XLA-00898] c 02 N70-36804
- Omnidirectional multiple impact landing system Patent  
[NASA-CASE-XLA-09881] c 31 N71-16085

## PLANETARY ORBITS

- Flexible foam erectable space structures Patent  
[NASA-CASE-XLA-00686] c 31 N70-34135

- Erectable modular space station Patent  
[NASA-CASE-XLA-00678] c 31 N70-34296

## PLANETARY RADIATION

- Altitude sensor for space vehicles Patent  
[NASA-CASE-XLA-00793] c 21 N71-22880

## PLANETARY SURFACES

- Method and apparatus for mapping planets  
[NASA-CASE-NPO-11001] c 07 N72-21118

## PLANTS (BOTANY)

- Rotary plant growth accelerating apparatus --- weightlessness  
[NASA-CASE-ARC-10722-1] c 51 N75-25503
- Molten salt pyrolysis of latex --- synthetic hydrocarbon fuel production using the Guayule shrub  
[NASA-CASE-NPO-14315-1] c 27 N81-17261
- Enhancement of in vitro guayule propagation  
[NASA-CASE-NPO-15213-1] c 51 N83-17045

## PLASMA ACCELERATION

- Apparatus for increasing ion engine beam density Patent  
[NASA-CASE-XLE-00519] c 28 N70-41576
- Coaxial high density, hypervelocity plasma generator and accelerator with ionizable metal disc  
[NASA-CASE-MFS-20589] c 25 N72-32688

## PLASMA ACCELERATORS

- Plasma accelerator Patent  
[NASA-CASE-XLA-00675] c 25 N70-33267
- Continuously operating induction plasma accelerator Patent  
[NASA-CASE-XLA-01354] c 25 N70-36946
- Crossed-field MHD plasma generator/ accelerator Patent  
[NASA-CASE-XLA-03374] c 25 N71-15562
- Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent  
[NASA-CASE-XLA-03103] c 25 N71-21693
- Magnetically controlled plasma accelerator Patent  
[NASA-CASE-XLA-00327] c 25 N71-29184
- Two stage light gas-plasma projectile accelerator  
[NASA-CASE-MFS-22287-1] c 75 N76-14931

## PLASMA CONTROL

- Superconductive magnetic-field-trapping device  
[NASA-CASE-XNP-01185] c 26 N73-28710
- Self-energized plasma compressor --- for compressing plasma discharged from coaxial plasma generator  
[NASA-CASE-MFS-22145-1] c 75 N75-13625

## PLASMA CYLINDERS

- Plasma fluidic hybrid display Patent  
[NASA-CASE-ERC-10100] c 09 N71-33519

## PLASMA DENSITY

- Focusing system for an ion source having apertured electrodes Patent  
[NASA-CASE-XNP-03332] c 09 N71-10618
- Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156

## PLASMA DIAGNOSTICS

- Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases  
[NASA-CASE-XLE-00690] c 25 N69-39884
- Apparatus for measuring conductivity and velocity of plasma utilizing a plurality of sensing coils positioned in the plasma Patent  
[NASA-CASE-XAC-05695] c 25 N71-16073
- Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156

## PLASMA DYNAMICS

- Apparatus for measuring conductivity and velocity of plasma utilizing a plurality of sensing coils positioned in the plasma Patent  
[NASA-CASE-XAC-05695] c 25 N71-16073
- Self-energized plasma compressor --- for compressing plasma discharged from coaxial plasma generator  
[NASA-CASE-MFS-22145-1] c 75 N75-13625

## PLASMA ENGINES

- Plasma device feed system Patent  
[NASA-CASE-XLE-02902] c 25 N71-21694

## PLASMA GENERATORS

- Method and apparatus for producing a plasma Patent  
[NASA-CASE-XLA-00147] c 25 N70-34681
- Crossed-field MHD plasma generator/ accelerator Patent  
[NASA-CASE-XLA-03374] c 25 N71-15562
- Coaxial high density, hypervelocity plasma generator and accelerator with ionizable metal disc  
[NASA-CASE-MFS-20589] c 25 N72-32688
- Self-energized plasma compressor --- for compressing plasma discharged from coaxial plasma generator  
[NASA-CASE-MFS-22145-1] c 75 N75-13625
- Self-energized plasma compressor  
[NASA-CASE-MFS-22145-2] c 75 N76-17951

- Continuous plasma laser --- method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma  
[NASA-CASE-XNP-04167-3] c 36 N77-19416

- Ring-cusp ion thruster with shell anode  
[NASA-CASE-LEW-13881-1] c 72 N83-21903

## PLASMA GUNS

- Method of making a diffusion bonded refractory coating Patent  
[NASA-CASE-XLE-01604-2] c 15 N71-15610

## PLASMA HEATING

- Hollow cathode apparatus  
[NASA-CASE-NPO-15560-1] c 75 N84-16993

## PLASMA JETS

- Method of preparing water purification membranes --- polymerization of allyl amine as thin films in plasma discharge  
[NASA-CASE-ARC-10643-1] c 25 N75-12087
- Combination automatic-starting electrical plasma torch and gas shutoff valve --- for satellite attitude control  
[NASA-CASE-XLE-10717] c 37 N75-29426
- Plasma cleaning device --- designed for high vacuum environments  
[NASA-CASE-MFS-22906-1] c 75 N78-27913

## PLASMA LAYERS

- Electrostatic plasma modulator for space vehicle re-entry communication Patent  
[NASA-CASE-XLA-01400] c 07 N70-41331
- Means for communicating through a layer of ionized gases Patent  
[NASA-CASE-XLA-01127] c 07 N70-41372
- Reentry communication by material addition Patent  
[NASA-CASE-XLA-01552] c 07 N71-11284

## PLASMA POTENTIALS

- Method and apparatus for neutralizing potentials induced on spacecraft surfaces  
[NASA-CASE-GSC-11963-1] c 33 N77-10429

## PLASMA PROBES

- Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases  
[NASA-CASE-XLE-00690] c 25 N69-39884
- Small plasma probe Patent  
[NASA-CASE-XLE-02578] c 25 N71-20747

## PLASMA PROPULSION

- Method of making dished ion thruster grids  
[NASA-CASE-LEW-11694-1] c 20 N75-18310

## PLASMA RADIATION

- Means for measuring the electron density gradients of the plasma sheath formed around a space vehicle Patent  
[NASA-CASE-XLA-06232] c 25 N71-20563

- Continuous plasma light source  
[NASA-CASE-XNP-04167-2] c 25 N72-24753

## PLASMA SHEATHS

- Apparatus for measuring electric field strength on the surface of a model vehicle Patent  
[NASA-CASE-XLE-02038] c 09 N71-16086

- Means for measuring the electron density gradients of the plasma sheath formed around a space vehicle Patent  
[NASA-CASE-XLA-06232] c 25 N71-20563

## PLASMA SPRAYING

- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00302] c 15 N71-16077
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-2] c 37 N82-26674
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450

- Improved thermal barrier coating system  
[NASA-CASE-LEW-14057-1] c 27 N84-33595

## PLASMA TEMPERATURE

- Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156

## PLASMA-ELECTROMAGNETIC INTERACTION

- Plasma igniter for internal combustion engine  
[NASA-CASE-NPO-13828-1] c 37 N79-11405

## PLASMAS (PHYSICS)

- Apparatus for measuring conductivity and velocity of plasma utilizing a plurality of sensing coils positioned in the plasma Patent  
[NASA-CASE-XAC-05695] c 25 N71-16073

## PLASMONS

- Inelastic tunnel diodes  
[NASA-CASE-LEW-13833-1] c 33 N83-25983

## PLASTIC COATINGS

- Coating process  
[NASA-CASE-XNP-06508] c 18 N69-39895

- Apparatus and method for skin packaging articles  
[NASA-CASE-MFS-20855] c 15 N73-27405
- Silicon nitride coated, plastic covered solar cell  
[NASA-CASE-LEW-11496-1] c 44 N77-14580
- Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers  
[NASA-CASE-ARC-10915-2] c 27 N79-18052
- Advanced inorganic separators for alkaline batteries  
[NASA-CASE-LEW-13171-1] c 44 N82-29708
- PLASTIC DEFORMATION**  
Light intensity strain analysis  
[NASA-CASE-LAR-10765-1] c 32 N73-20740
- Mechanical bonding of metal method  
[NASA-CASE-LEW-12941-1] c 26 N83-10170
- PLASTIC TAPES**  
Thermocouple tape  
[NASA-CASE-LEW-11072-1] c 14 N73-24472
- PLASTICIZERS**  
Inorganic-organic separators for alkaline batteries  
[NASA-CASE-LEW-12649-1] c 44 N78-25530
- Tackifier for addition polyimides containing monoethylphthalate  
[NASA-CASE-LAR-12642-1] c 27 N81-29229
- Method of bonding plasticized elastomer to metal and articles produced thereby  
[NASA-CASE-MFS-25181-1] c 27 N82-24340
- Advanced inorganic separators for alkaline batteries  
[NASA-CASE-LEW-13171-1] c 44 N82-29708
- PLASTICS**  
Method for forming plastic materials Patent  
[NASA-CASE-XMS-05516] c 15 N71-17803
- Method of making inflatable honeycomb Patent  
[NASA-CASE-XLA-03492] c 15 N71-22713
- Sealing member and combination thereof and method of producing said sealing member Patent  
[NASA-CASE-XMS-01825] c 15 N71-23022
- Dielectric molding apparatus Patent  
[NASA-CASE-LAR-10121-1] c 15 N71-26721
- Radar calibration sphere  
[NASA-CASE-XLA-11154] c 07 N72-21117
- Molding apparatus — for thermosetting plastic compositions  
[NASA-CASE-LAR-10489-2] c 31 N74-32920
- Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N78-32315
- PLATENS**  
Compression test apparatus  
[NASA-CASE-MSC-18723-1] c 35 N83-21312
- PLATES (STRUCTURAL MEMBERS)**  
Foil seal  
[NASA-CASE-XLE-05130] c 15 N69-21362
- Fifth wheel  
[NASA-CASE-FRC-10081-1] c 37 N77-14477
- Microwave dichroic plate  
[NASA-CASE-GSC-12171-1] c 33 N79-28416
- Floating nut retention system  
[NASA-CASE-MSC-16938-1] c 37 N80-23653
- Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859
- PLATING**  
Selective plating of etched circuits without removing previous plating Patent  
[NASA-CASE-XGS-03120] c 15 N71-24047
- Peen plating  
[NASA-CASE-GSC-11163-1] c 15 N73-32360
- Scanning nozzle plating system — for etching or plating metals on substrates without masking  
[NASA-CASE-NPO-11758-1] c 31 N74-23065
- Method for depositing an oxide coating  
[NASA-CASE-LEW-13131-1] c 44 N83-10494
- PLATINUM**  
Electrolytic cell structure  
[NASA-CASE-LAR-11042-1] c 33 N75-27252
- Platinum resistance thermometer circuit  
[NASA-CASE-MSC-12327-1] c 35 N77-27368
- PLATINUM ALLOYS**  
Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338
- PLAYBACKS**  
Method of and means for testing a tape record/playback system  
[NASA-CASE-MFS-22671-2] c 35 N77-17426
- Thermomagnetic recording and magnetic-optic playback system  
[NASA-CASE-NPO-10872-1] c 35 N79-16246
- PLENUM CHAMBERS**  
Air cushion lift pad Patent  
[NASA-CASE-MFS-14685] c 31 N71-15689
- Gas filter mounting structure  
[NASA-CASE-MSC-12297] c 14 N72-23457
- Micro-fluid exchange coupling apparatus  
[NASA-CASE-ARC-11114-1] c 51 N81-14605
- Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568
- PLETHYSMOGRAPHY**  
Readout electrode assembly for measuring biological impedance  
[NASA-CASE-ARC-10816-1] c 35 N76-24525
- Apparatus for determining changes in limb volume  
[NASA-CASE-MSC-18759-1] c 52 N83-27578
- PLOTTERS**  
Automated equipotential plotter  
[NASA-CASE-NPO-11134] c 09 N72-21246
- Apparatus and method for determining the position of a radiant energy source  
[NASA-CASE-GSC-12147-1] c 32 N81-27341
- PLOTTING**  
Instrument for measuring potentials on two dimensional electric field plots Patent  
[NASA-CASE-XLA-08493] c 10 N71-19421
- PLUG NOZZLES**  
Cascade plug nozzle — for jet noise reduction  
[NASA-CASE-LAR-11674-1] c 07 N76-18117
- Apparatus and method for jet noise suppression  
[NASA-CASE-LAR-11903-2] c 71 N84-14873
- PLUGS**  
Rocket chamber leak test fixture  
[NASA-CASE-XFR-09479] c 14 N69-27503
- Fatigue-resistant shear pin  
[NASA-CASE-XLA-09122] c 15 N69-27505
- Gas regulator Patent  
[NASA-CASE-NPO-10298] c 12 N71-17661
- Heated porous plug microthruster  
[NASA-CASE-GSC-10640-1] c 28 N72-18766
- High temperature penetrator assembly with bayonet plug and ramp-activated lock  
[NASA-CASE-MSC-18526-1] c 37 N82-24494
- PLUNGERS**  
Constant force friction damper  
[NASA-CASE-MSC-20505-1] c 18 N84-22611
- PNEUMATIC CONTROL**  
Pneumatic system for controlling and actuating pneumatic cyclic devices  
[NASA-CASE-XMS-04843] c 03 N69-21489
- Pneumatic mirror support system  
[NASA-CASE-XLA-03271] c 11 N69-24321
- Valve actuator Patent  
[NASA-CASE-XHQ-01208] c 15 N70-35409
- Quick release hook tape Patent  
[NASA-CASE-XMS-10680-1] c 15 N71-25975
- Foot pedal operated fluid type exercising device  
[NASA-CASE-MSC-11561-1] c 05 N73-32014
- Pneumatic load compensating or controlling system  
[NASA-CASE-ARC-10907-1] c 37 N75-32485
- PNEUMATIC EQUIPMENT**  
High pressure air valve Patent  
[NASA-CASE-MSC-11010] c 15 N71-19485
- Inflatable support structure Patent  
[NASA-CASE-XLA-01731] c 32 N71-21045
- Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
[NASA-CASE-XMS-01905] c 12 N71-21089
- Zero gravity apparatus Patent  
[NASA-CASE-XMF-06515] c 14 N71-23227
- Pneumatic amplifier Patent  
[NASA-CASE-MSC-12121-1] c 15 N71-27147
- Life raft stabilizer  
[NASA-CASE-MSC-12393-1] c 02 N73-26006
- Airlock  
[NASA-CASE-MFS-20922-1] c 18 N74-22136
- Pneumatic load compensating or controlling system  
[NASA-CASE-ARC-10907-1] c 37 N75-32485
- Improved tire/wheel concept — pneumatic aircraft tire  
[NASA-CASE-LAR-11695-2] c 37 N80-18402
- Gas-to-hydraulic power converter  
[NASA-CASE-MSC-18794-1] c 44 N83-14893
- System and method for moving a probe to follow movements of tissue  
[NASA-CASE-NPO-15197-1] c 52 N83-25346
- Apparatus for improving the fuel efficiency of a gas turbine engine  
[NASA-CASE-LEW-13142-1] c 07 N83-36029
- Inflatable device for installing strain gage bridges  
[NASA-CASE-FRC-11068-1] c 35 N84-12443
- POINT SOURCES**  
Electronic background suppression method and apparatus for a field scanning sensor  
[NASA-CASE-XGS-05211] c 07 N69-39980
- X-ray reflection collimator adapted to focus X-radiation directly on a detector Patent  
[NASA-CASE-XHQ-04106] c 14 N70-40240
- Apparatus and method for determining the position of a radiant energy source  
[NASA-CASE-GSC-12147-1] c 32 N81-27341
- POINTING CONTROL SYSTEMS**  
Rotable accurate reflector system for telescopes Patent  
[NASA-CASE-NPO-10468] c 23 N71-33229
- All sky pointing attitude control system  
[NASA-CASE-ARC-10716-1] c 35 N77-20399
- Magnetic suspension and pointing system  
[NASA-CASE-LAR-11889-2] c 37 N78-27424
- Magnetic suspension and pointing system — on a carrier vehicle  
[NASA-CASE-LAR-11889-1] c 35 N79-26372
- Solar tracking system  
[NASA-CASE-MFS-23999-1] c 44 N81-24520
- POLAR ORBITS**  
Cartwheel satellite synchronization system Patent  
[NASA-CASE-XNP-08883] c 31 N71-15676
- POLARIMETERS**  
Polarimeter for transient measurement Patent  
[NASA-CASE-XNP-08883] c 23 N71-16101
- Interferometer-polarimeter  
[NASA-CASE-NPO-11239] c 14 N73-12446
- POLARITY**  
Positive dc to negative dc converter Patent  
[NASA-CASE-XMF-08217] c 03 N71-23239
- Peak polarity selector Patent  
[NASA-CASE-FRC-10010] c 10 N71-24862
- Precision rectifier with FET switching means Patent  
[NASA-CASE-ARC-10101-1] c 09 N71-33109
- POLARIZATION (WAVES)**  
System for interference signal nulling by polarization adjustment  
[NASA-CASE-NPO-13140-1] c 32 N75-24982
- Multifrequency broadband polarized horn antenna  
[NASA-CASE-NPO-14588-1] c 32 N81-25278
- Faraday rotation measurement method and apparatus  
[NASA-CASE-NPO-14839-1] c 35 N82-15381
- POLARIZED ELECTROMAGNETIC RADIATION**  
Antenna beam-shaping apparatus Patent  
[NASA-CASE-XNP-00611] c 09 N70-35219
- Parabolic reflector horn feed with spillover correction Patent  
[NASA-CASE-XNP-00540] c 09 N70-35382
- Antenna feed system for receiving circular polarization and transmitting linear polarization  
[NASA-CASE-NPO-14382-1] c 32 N80-16261
- Coaxial phased array antenna  
[NASA-CASE-MSC-16800-1] c 32 N81-14187
- POLARIZED LIGHT**  
Polarization compensator for optical communications  
[NASA-CASE-GSC-11782-1] c 74 N76-30053
- Visible and infrared polarization ratio spectrophotometer  
[NASA-CASE-LAR-12285-1] c 35 N80-28687
- Wide dynamic range video camera  
[NASA-CASE-MFS-25750-1] c 33 N83-35229
- POLARIZED RADIATION**  
Microwave limb sounder — measuring trace gases in the upper atmosphere  
[NASA-CASE-NPO-14544-1] c 46 N82-12685
- POLARIZERS**  
Partial polarizer filter  
[NASA-CASE-GSC-12225-1] c 74 N79-14891
- POLISHING**  
Conforming polisher for aspheric surface of revolution Patent  
[NASA-CASE-XGS-02884] c 15 N71-22705
- Method of forming a sharp edge on an optical device  
[NASA-CASE-GSC-12348-1] c 74 N80-24149
- POLLUTION CONTROL**  
System for minimizing internal combustion engine pollution emission  
[NASA-CASE-NPO-13402-1] c 37 N78-18457
- Combustion engine — for air pollution control  
[NASA-CASE-NPO-13671-1] c 37 N77-31497
- Supercritical fuel injection system  
[NASA-CASE-LEW-12990-1] c 07 N81-29129
- Apparatus and method for destructive removal of particles contained in flowing fluid  
[NASA-CASE-NPO-15426-1] c 35 N84-17555
- POLLUTION MONITORING**  
Fluorescence detector for monitoring atmospheric pollutants  
[NASA-CASE-NPO-13231-1] c 45 N75-27585
- Stack plume visualization system  
[NASA-CASE-LAR-11675-1] c 45 N76-17656
- Indicator providing continuous indication of the presence of a specific pollutant in air  
[NASA-CASE-NPO-13474-1] c 45 N76-21742
- Method for detecting pollutants — through chemical reactions and heat treatment  
[NASA-CASE-LAR-11405-1] c 45 N76-31714
- Automated syringe sampler — remote sampling of air and water  
[NASA-CASE-LAR-12308-1] c 35 N81-29407
- POLYAMIDE RESINS**  
Violet process for producing flame resistant polyamides and products produced thereby — protective clothing for high oxygen environments  
[NASA-CASE-MSC-16074-1] c 27 N80-26446
- Thermoset-thermoplastic aromatic polyamides  
[NASA-CASE-LAR-12723-1] c 27 N81-15107

- Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746
- Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-1] c 54 N84-28484
- POLYBENZIMIDAZOLE**  
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles  
[NASA-CASE-ARC-11008-1] c 27 N78-31232
- POLYBUTADIENE**  
New polymers of perfluorobutadiene and method of manufacture Patent application  
[NASA-CASE-NPO-10863] c 06 N70-11251
- Method of polymerizing perfluorobutadiene Patent application  
[NASA-CASE-NPO-10447] c 06 N70-11252
- Inhibited solid propellant composition containing beryllium hydride  
[NASA-CASE-NPO-10866-1] c 28 N79-14228
- POLYCARBONATES**  
Helmet assembly and latch means therefor Patent  
[NASA-CASE-XMS-04935] c 05 N71-11190
- POLYCRYSTALS**  
Fabrication of polycrystalline solar cells on low-cost substrates  
[NASA-CASE-GSC-12022-1] c 44 N76-28635
- Process for utilizing low-cost graphite substrates for polycrystalline solar cells  
[NASA-CASE-GSC-12022-2] c 44 N78-24609
- Method for the preparation of inorganic single crystal and polycrystalline electronic materials  
[NASA-CASE-XLE-02545-1] c 76 N79-21910
- POLYESTERS**  
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[NASA-CASE-NPO-10596] c 06 N71-25929
- Apparatus for forming drive belts  
[NASA-CASE-NPO-13205-1] c 31 N74-32917
- Sulfone-ester polymers containing pendent ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987
- Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988
- POLYETHER RESINS**  
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[NASA-CASE-MFS-10506] c 06 N73-30100
- Fluorohydroxy ethers  
[NASA-CASE-MFS-10507] c 06 N73-30101
- Highly fluorinated polymers  
[NASA-CASE-MFS-11492] c 06 N73-30102
- Aqueous alkali metal hydroxide insoluble cellulose ether membrane  
[NASA-CASE-XGS-05584-1] c 25 N82-29370
- POLYIMIDE RESINS**  
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- Polyimide adhesives  
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- Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety  
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- Mixed diamines for lower melting addition polyimide preparation and utilization  
[NASA-CASE-LAR-12054-1] c 27 N79-33316
- Process for preparing high temperature polyimide film laminates  
[NASA-CASE-LAR-12742-1] c 24 N81-12174
- Composition and method for making polyimide resin-reinforced fabric  
[NASA-CASE-LEW-12933-1] c 27 N81-19296
- Tackifier for addition polyimides containing monoethylphthalate  
[NASA-CASE-LAR-12642-1] c 27 N81-29229
- Improved high temperature resistant polyimides  
[NASA-CASE-LEW-13864-1] c 27 N83-17715
- Low temperature cross linking polyimides  
[NASA-CASE-LEW-12876-2] c 27 N83-29392
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-2] c 27 N83-30651
- Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-3] c 24 N84-22698
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-4] c 24 N84-22699
- Chemical approach for controlling nadimide cure temperature and rate  
[NASA-CASE-LEW-13770-5] c 24 N84-22700

- Chemical approach for controlling nadimide cure temperature and rate  
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- POLYIMIDES**  
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- Polyimide foam for the thermal insulation and fire protection  
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- Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125
- Polyimides of ether-linked aryl tetracarboxylic dianhydrides  
[NASA-CASE-MFS-22355-1] c 23 N76-15268
- Process for preparing thermoplastic aromatic polyimides  
[NASA-CASE-LAR-11828-1] c 27 N78-32261
- Ambient cure polyimide foams --- thermal resistant foams  
[NASA-CASE-ARC-11170-1] c 27 N79-11215
- Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides --- flame retardant foams  
[NASA-CASE-ARC-11107-1] c 25 N80-18116
- Crystalline polyimides --- reinforcing fibers for high temperature composites and adhesives as well as flame retardation  
[NASA-CASE-LAR-12099-1] c 27 N80-16158
- Method for preparing addition type polyimide prepreps  
[NASA-CASE-LAR-12054-2] c 27 N81-14078
- Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206
- Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775-1] c 27 N83-28240
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-29390
- A solvent resistant, thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-29391
- Solvent resistant thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-1] c 27 N83-34041
- Melt-flow-toughness modified polyimide  
[NASA-CASE-LAR-13135-1] c 27 N84-34616
- POLYISOBUTYLENE**  
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- POLYISOPRENES**  
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[NASA-CASE-NPO-15213-1] c 51 N83-17045
- POLYMER CHEMISTRY**  
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[NASA-CASE-NPO-10714] c 06 N69-31244
- Synthesis of siloxane-containing epoxy polymers Patent  
[NASA-CASE-MFS-13994-1] c 06 N71-11240
- Apparatus for testing polymeric materials Patent  
[NASA-CASE-XNP-09699] c 06 N71-24607
- Polyimide adhesives  
[NASA-CASE-LAR-11397-1] c 27 N75-29263
- Trimerization of aromatic nitriles  
[NASA-CASE-LEW-12053-1] c 27 N78-15276
- Polyimide adhesives  
[NASA-CASE-LAR-12181-1] c 27 N78-17205
- Infusible silazane polymer and process for producing same --- protective coatings  
[NASA-CASE-XMF-02526-1] c 27 N79-21190
- Fluorine-containing polyformals  
[NASA-CASE-XMF-06900-1] c 27 N79-21191
- In situ self cross-linking of polyvinyl alcohol battery separators  
[NASA-CASE-LEW-12972-1] c 44 N79-25481
- Bifunctional monomers having terminal oxime and cyano or amide groups  
[NASA-CASE-ARC-11253-3] c 27 N81-24256
- In-situ cross linking of polyvinyl alcohol --- application to battery separator films  
[NASA-CASE-LEW-13135-2] c 27 N81-24257
- Polymeric compositions and their method of manufacture --- forming filled polymer systems using cryogenics  
[NASA-CASE-NPO-10424-1] c 27 N81-24258
- Process for the preparation of polycarboranophosphazenes --- thermal insulation  
[NASA-CASE-ARC-11176-2] c 27 N81-27271
- Phosphorus-containing bisimide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272
- Preparation of crosslinked 1,2,4-oxadiazole polymer  
[NASA-CASE-ARC-11253-2] c 27 N82-24338

- Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353
- POLYMER MATRIX COMPOSITES**  
Intumescent-ablator coatings using endothermic fillers  
[NASA-CASE-ARC-11043-1] c 24 N78-27180
- POLYMERIC FILMS**  
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[NASA-CASE-XNP-09763] c 14 N71-20461
- Hydraulic casting of liquid polymers Patent  
[NASA-CASE-XNP-07659] c 06 N71-22975
- Thermoelectric radiometer utilizing polymer film  
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- Apparatus and method for skin packaging articles  
[NASA-CASE-MFS-20855] c 15 N73-27405
- Covered silicon solar cells and method of manufacture --- with polymeric films  
[NASA-CASE-LEW-11065-2] c 44 N76-14600
- Preparation of dielectric coating of variable dielectric constant by plasma polymerization  
[NASA-CASE-MSC-10892-2] c 27 N79-14214
- Reverse osmosis membrane of high urea rejection properties --- water purification  
[NASA-CASE-ARC-10980-1] c 27 N80-23452
- Surface finishing  
[NASA-CASE-MSC-12631-3] c 27 N81-14077
- Cross-linked polyvinyl alcohol and method of making same  
[NASA-CASE-LEW-13101-2] c 23 N81-29160
- Separator for alkaline electric cells and method of making  
[NASA-CASE-GSC-10017-1] c 44 N82-24643
- Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396
- Texturing polymer surfaces by transfer casting --- cardiovascular prosthesis  
[NASA-CASE-LEW-13120-1] c 27 N82-28440
- Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275
- Method for making a bonded single mode fiber optic wavelength coupler  
[NASA-CASE-NPO-15464-1] c 74 N83-25540
- Method for the preparation of thin-skinned asymmetric reverse osmosis membranes and products thereof  
[NASA-CASE-ARC-11359-1] c 51 N84-28361
- POLYMERIZATION**  
New polymers of perfluorobutadiene and method of manufacture Patent application  
[NASA-CASE-NPO-10863] c 06 N70-11251
- Method of polymerizing perfluorobutadiene Patent application  
[NASA-CASE-NPO-10447] c 06 N70-11252
- Process for interfacial polymerization of pyromellitic dianhydride and 1,2,4,5-tetraamino-benzene Patent  
[NASA-CASE-XLA-03104] c 06 N71-11235
- Imidazopyrrolone/imide copolymers Patent  
[NASA-CASE-XLA-08802] c 06 N71-11238
- Direct synthesis of polymeric schiff bases from two amines and two aldehydes Patent  
[NASA-CASE-XMF-08655] c 06 N71-11239
- Azine polymers and process for preparing the same Patent  
[NASA-CASE-XMF-08656] c 06 N71-11242
- Synthesis of polymeric schiff bases by reaction of acetals and amine compounds Patent  
[NASA-CASE-XMF-08652] c 06 N71-11243
- Elastomeric silazane polymers and process for preparing the same Patent  
[NASA-CASE-XMF-04133] c 06 N71-20717
- Reaction of fluorine with polyperfluoropolyenes  
[NASA-CASE-NPO-10862] c 06 N72-22107
- Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979] c 06 N72-25151
- Polymers of perfluorobutadiene and method of manufacture  
[NASA-CASE-NPO-10863-2] c 06 N72-25152
- Fluorohydroxy ethers  
[NASA-CASE-MFS-10507] c 06 N73-30101
- Highly fluorinated polymers  
[NASA-CASE-MFS-11492] c 06 N73-30102
- Method of preparing water purification membranes --- polymerization of allyl amine as thin films in plasma discharge  
[NASA-CASE-ARC-10643-1] c 25 N75-12087
- Utilization of oxygen difluoride for syntheses of fluoropolymers  
[NASA-CASE-NPO-12061-1] c 27 N76-16228
- Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof  
[NASA-CASE-NPO-10557] c 27 N78-17214
- Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles  
[NASA-CASE-ARC-11008-1] c 27 N78-31232

- Ambient cure polyimide foams --- thermal resistant foams  
[NASA-CASE-ARC-11170-1] c 27 N79-11215
- Preparation of heterocyclic block copolymer omega-diamidoximes  
[NASA-CASE-ARC-11060-1] c 27 N79-22300
- Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby  
[NASA-CASE-LEW-12053-2] c 27 N79-28307
- Mixed diamines for lower melting addition polyimide preparation and utilization  
[NASA-CASE-LAR-12054-1] c 27 N79-33316
- Compound oxidized styrylphosphine --- flame resistant vinyl polymers  
[NASA-CASE-MSC-14903-2] c 27 N80-10358
- Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-3] c 27 N80-24438
- Perfluoroalkyl polytriazines containing pendent iodo-difluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016
- Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104
- Process for the preparation of fluorine containing crosslinked elastomeric polytriazine and product so produced  
[NASA-CASE-ARC-11248-1] c 27 N81-17259
- The 1,2,4-oxadiazole elastomers --- heat resistant polymers  
[NASA-CASE-ARC-11253-1] c 27 N81-17262
- Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242
- Ion-exchange hollow fibers  
[NASA-CASE-NPO-13309-1] c 25 N81-19244
- Carboranylchlorophosphazenes and their polymers --- thermal insulation  
[NASA-CASE-ARC-11176-1] c 27 N82-18389
- Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396
- Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275
- The 1-(dialkoxyposphonyl)methyl-2,4- and -2,6-dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076
- Solvent resistant thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-1] c 27 N83-34041
- Polymers of phosphonylmethyl-2,4- and -2,6-diamino benzenes and the like  
[NASA-CASE-ARC-11506-1] c 27 N84-12313
- Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322
- Process for preparing phthalocyanine polymers  
[NASA-CASE-ARC-11511-1] c 23 N84-16259
- Amine terminated bisaspartimides, process for preparation thereof, and polymers thereof  
[NASA-CASE-ARC-11421-1] c 27 N84-16340
- Fire resistant polymers based on 1-((dialkoxyposphonyl)methyl)-2,4- and -2,6-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702
- Supercritical solvent coal extraction  
[NASA-CASE-NPO-15210-1] c 25 N84-22709
- Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746
- Polyphenylene ethers with imide linking groups  
[NASA-CASE-LAR-12980-1] c 27 N84-22749
- Carboranyl(methylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750
- Phenoxy resins containing pendent ethynyl groups and cured resins therefrom  
[NASA-CASE-LAR-13262-1] c 27 N84-24805
- Metal phthalocyanine polymers  
[NASA-CASE-ARC-11405-1] c 27 N84-27884
- Sulfone-ester polymers containing pendent ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987
- Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988
- Stabilized unsaturated polyesters  
[NASA-CASE-NPO-16103-1] c 27 N84-32530
- POLYMERS**  
Preparation of ordered polyarylenesiloxane/polymers  
[NASA-CASE-XMF-10753] c 06 N71-11237
- Aromatic diamine-aromatic dialdehyde high molecular weight Schiff base polymers prepared in a monofunctional Schiff base Patent  
[NASA-CASE-XMF-03074] c 06 N71-24740
- Resilience testing device Patent  
[NASA-CASE-XLA-08254] c 14 N71-26161
- Epoxy-aziridine polymer product Patent  
[NASA-CASE-NPO-10701] c 06 N71-28620
- Solid state thermal control polymer coating Patent  
[NASA-CASE-XLA-01745] c 33 N71-28903
- Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines  
[NASA-CASE-ARC-10325] c 06 N72-25147
- Hydrazinium nitroformate propellant with saturated polymeric hydrocarbon binder  
[NASA-CASE-NPO-12015] c 27 N73-16764
- Method of forming difunctional polyisobutylene  
[NASA-CASE-NPO-10893] c 27 N73-22710
- Novel polymers and method of preparing same  
[NASA-CASE-NPO-10998-1] c 08 N73-32029
- Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21156
- Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N76-32315
- Oil and fat absorbing polymers  
[NASA-CASE-NPO-11609-2] c 27 N77-31308
- Method for separating biological cells --- suspended in aqueous polymer systems  
[NASA-CASE-MFS-23883-1] c 51 N80-16715
- Chelate-modified polymers for atmospheric gas chromatography  
[NASA-CASE-ARC-11154-1] c 25 N80-23383
- Modification of the electrical and optical properties of polymers --- ion irradiation to create texture  
[NASA-CASE-LEW-13027-1] c 27 N80-24437
- Phosphorus-containing imide resins  
[NASA-CASE-ARC-11388-3] c 27 N84-22745
- Carboranyl(methylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750
- POLYMETHYL METHACRYLATE**  
Durable antistatic coating for polymethylmethacrylate  
[NASA-CASE-NPO-13867-1] c 27 N78-14164
- Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses  
[NASA-CASE-ARC-11039-1] c 74 N78-32654
- POLYPHENYL ETHER**  
Polyphenylene ethers with imide linking groups  
[NASA-CASE-LAR-12980-1] c 27 N84-22749
- POLYPHENYLS**  
Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423
- Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups --- for thermoplastic resins  
[NASA-CASE-LAR-12838-1] c 27 N83-34040
- Polyphenylene ethers with imide linking groups  
[NASA-CASE-LAR-12980-1] c 27 N84-22749
- POLYPROPYLENE**  
Stabilized unsaturated polyesters  
[NASA-CASE-NPO-16103-1] c 27 N84-32530
- POLYSACCHARIDES**  
Aldehyde-containing urea-absorbing polysaccharides  
[NASA-CASE-NPO-13820-1] c 27 N77-30236
- POLYTETRAFLUOROETHYLENE**  
Method and apparatus for bonding a plastics sleeve onto a metallic body Patent  
[NASA-CASE-XLA-01262] c 15 N71-21404
- Diffusely reflecting paints including polytetrafluoroethylene and method of manufacture  
[NASA-CASE-GSC-12883-1] c 27 N84-24806
- POLYURETHANE FOAM**  
Flexible foam erectable space structures Patent  
[NASA-CASE-XLA-00686] c 31 N70-34135
- Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10098-1] c 08 N71-24739
- Flexible fire retardant foam  
[NASA-CASE-ARC-10180-1] c 28 N72-20767
- Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices  
[NASA-CASE-ARC-10180-1] c 27 N74-12814
- Fiber modified polyurethane foam for ballistic protection  
[NASA-CASE-ARC-10714-1] c 27 N76-15310
- Mixing insert for foam dispensing apparatus  
[NASA-CASE-MFS-20607-1] c 37 N76-19436
- POLYURETHANE RESINS**  
Hydroxy terminated perfluoro ethers Patent  
[NASA-CASE-NPO-10768] c 06 N71-27254
- Polyurethane resins from hydroxy terminated perfluoro ethers  
[NASA-CASE-NPO-10768-2] c 06 N72-27144
- Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-2] c 06 N72-27151
- Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099
- Polyurethanes from fluoroalkyl propyleneglycol polyethers  
[NASA-CASE-MFS-10506] c 06 N73-30100
- Fluorine containing polyurethane  
[NASA-CASE-MFS-10509] c 06 N73-30103
- Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-1] c 06 N73-33076
- Flame retardant spandex type polyurethanes  
[NASA-CASE-MSC-14331-2] c 27 N78-17213
- POLYVINYL ALCOHOL**  
In situ self cross-linking of polyvinyl alcohol battery separators  
[NASA-CASE-LEW-12972-1] c 44 N79-25481
- Method of cross-linking polyvinyl alcohol and other water soluble resins  
[NASA-CASE-LEW-13103-1] c 27 N80-32516
- In-situ cross linking of polyvinyl alcohol --- application to battery separator films  
[NASA-CASE-LEW-13135-2] c 27 N81-24257
- Polyvinyl alcohol battery separator containing inert filler --- alkaline batteries  
[NASA-CASE-LEW-13556-1] c 44 N81-27615
- Cross-linked polyvinyl alcohol and method of making same  
[NASA-CASE-LEW-13101-2] c 23 N81-29160
- Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531
- Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188
- Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-2] c 44 N83-28805
- PORCELAIN**  
Refractory porcelain enamel passive control coating for high temperature alloys  
[NASA-CASE-MFS-22324-1] c 27 N75-27160
- POROSITY**  
Process for making sheets with parallel pores of uniform size  
[NASA-CASE-GSC-10984-1] c 37 N75-26371
- POROUS MATERIALS**  
Method of producing refractory bodies having controlled porosity Patent  
[NASA-CASE-LEW-10393-1] c 17 N71-15468
- Multilayer porous ionizer Patent  
[NASA-CASE-XNP-04338] c 17 N71-23046
- Fluid lubricant system Patent  
[NASA-CASE-XNP-03972] c 15 N71-23048
- Method and device for detecting voids in low density material Patent  
[NASA-CASE-MFS-20044] c 14 N71-28993
- Fabrication of controlled-porosity metals Patent  
[NASA-CASE-XNP-04339] c 17 N71-29137
- Compressible biomedical electrode  
[NASA-CASE-MSC-13648] c 05 N72-27103
- Porous electrode comprising a bonded stack of pieces of corrugated metal foil  
[NASA-CASE-GSC-11368-1] c 09 N73-32108
- Method of making porous conductive supports for electrodes --- by electroforming and stacking nickel foils  
[NASA-CASE-GSC-11367-1] c 44 N74-19692
- Fluid valve assembly  
[NASA-CASE-MSC-12731-1] c 37 N78-25426
- Heat exchanger and method of making --- bonding rocket chambers with a porous metal matrix  
[NASA-CASE-LEW-12441-1] c 34 N79-13289
- Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-18540
- Densification of porous refractory substrates --- space shuttle orbiter tiles  
[NASA-CASE-MSC-18737-1] c 24 N83-13171
- Method of repairing surface damage to porous refractory substrates --- space shuttle orbiter tiles  
[NASA-CASE-MSC-18736-1] c 24 N83-13172
- Advanced inorganic separators for alkaline batteries and method of making the same  
[NASA-CASE-LEW-13171-2] c 44 N83-32176
- POROUS PLATES**  
Method of producing porous tungsten ionizers for ion rocket engines Patent  
[NASA-CASE-XLE-00455] c 28 N70-38197
- POROUS WALLS**  
Reciprocating magnetic refrigerator employing tandem porous matrices within a reciprocating displacer  
[NASA-CASE-NPO-16257-1] c 31 N84-24830
- PORPHYRINS**  
Method and apparatus for eliminating luminol interference material  
[NASA-CASE-MSC-16260-1] c 51 N80-16714
- PORTABLE EQUIPMENT**  
Split welding chamber Patent  
[NASA-CASE-LEW-11531] c 15 N71-14932
- Portable superclean air column device Patent  
[NASA-CASE-XMF-03212] c 15 N71-22721

- Weld preparation machine Patent  
[NASA-CASE-XKS-07953] c 15 N71-26134
- Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-26148
- Cryogenic cooling system Patent  
[NASA-CASE-NPO-10467] c 23 N71-26654
- Boring bar drive mechanism Patent  
[NASA-CASE-XLA-03661] c 15 N71-33518
- One hand backpack harness  
[NASA-CASE-LAR-10102-1] c 05 N72-23085
- Bacterial contamination monitor  
[NASA-CASE-GSC-10879-1] c 14 N72-25413
- Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420
- Hand-held photomicroscope  
[NASA-CASE-ARC-10468-1] c 14 N73-33361
- System for enhancing tool-exchange capabilities of a portable wrench  
[NASA-CASE-MFS-22283-1] c 37 N75-33395
- Method of peening and portable peening gun  
[NASA-CASE-MFS-23047-1] c 37 N76-18454
- Portable electrophoresis apparatus using minimum electrolyte  
[NASA-CASE-NPO-13274-1] c 25 N79-10163
- Portable heatable container  
[NASA-CASE-NPO-14237-1] c 44 N80-20808
- Portable device for use in starting air-start-units for aircraft and having cable lead testing capability  
[NASA-CASE-FRC-10113-1] c 33 N80-26599
- Portable appliance security apparatus  
[NASA-CASE-GSC-12399-1] c 33 N81-25299
- Portable pallet weight apparatus  
[NASA-CASE-GSC-12789-1] c 35 N83-13425
- Dual-beam skin friction interferometer  
[NASA-CASE-ARC-11354-1] c 74 N83-21949
- Portable 90 deg proof loading device  
[NASA-CASE-MSC-20250-1] c 37 N83-29707
- Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137
- Two-dimensional scanner apparatus --- flaw detector in small flat plates  
[NASA-CASE-MFS-25687-1] c 35 N84-22928
- Portable reflectance spectrometer  
[NASA-CASE-NPO-13556-1] c 35 N84-33766
- PORTABLE LIFE SUPPORT SYSTEMS**
- Portable breathing system --- a breathing apparatus using a rebreathing system of heat exchangers for carbon dioxide removal  
[NASA-CASE-MSC-16182-1] c 54 N80-10799
- PORTS (OPENINGS)**
- Evacuation port seal Patent  
[NASA-CASE-XMF-03290] c 15 N71-23256
- Safety shield for vacuum/pressure chamber viewing port  
[NASA-CASE-GSC-12513-1] c 31 N81-19343
- POSITION (LOCATION)**
- Position location system and method Patent  
[NASA-CASE-GSC-10087-2] c 21 N71-13958
- Position location and data collection system and method Patent  
[NASA-CASE-GSC-10083-1] c 30 N71-16090
- Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067
- Position location system and method  
[NASA-CASE-GSC-10087-3] c 07 N72-12080
- Location identification system  
[NASA-CASE-ERC-10324] c 07 N72-25173
- Cosmic dust or other similar outer space particles impact location detector  
[NASA-CASE-GSC-11291-1] c 25 N72-33696
- Collimator of multiple plates with axially aligned identical random arrays of apertures  
[NASA-CASE-MFS-20546-2] c 14 N73-30389
- Measuring probe position recorder  
[NASA-CASE-LAR-10806-1] c 35 N74-32877
- Vehicle locating system utilizing AM broadcasting station carriers  
[NASA-CASE-NPO-13217-1] c 32 N75-26194
- Impact position detector for outer space particles  
[NASA-CASE-GSC-11829-1] c 35 N75-27331
- Aircraft-mounted crash-activated transmitter device  
[NASA-CASE-MFS-16609-3] c 03 N76-32140
- Twin-capacitive shaft angle encoder with analog output signal  
[NASA-CASE-ARC-10897-1] c 33 N77-31404
- X-ray position detector  
[NASA-CASE-NPO-12087-1] c 74 N81-19898
- Closed loop electrostatic system  
[NASA-CASE-NPO-15553-1] c 33 N83-12335
- POSITION INDICATORS**
- Scanning aspect sensor employing an apertured disc and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432
- Angular measurement system Patent  
[NASA-CASE-XMF-00447] c 14 N70-33179
- Position sensing device employing misaligned magnetic field generating and detecting apparatus Patent  
[NASA-CASE-XGS-07514] c 23 N71-16099
- Angular position and velocity sensing apparatus Patent  
[NASA-CASE-XGS-05680] c 14 N71-17585
- Extended area semiconductor radiation detectors and a novel readout arrangement Patent  
[NASA-CASE-XGS-03230] c 14 N71-23401
- Doppler compensation by shifting transmitted object frequency within limits  
[NASA-CASE-GSC-10087-4] c 07 N73-20174
- Meteoroid impact position locator aid for manned space station  
[NASA-CASE-LAR-10629-1] c 35 N75-33367
- Position determination systems --- using orbital antenna scan of celestial bodies  
[NASA-CASE-MSC-12593-1] c 17 N76-21250
- Solar cell angular position transducer  
[NASA-CASE-LAR-11999-1] c 44 N80-18552
- Aircraft control position indicator  
[NASA-CASE-LAR-12984-1] c 06 N84-20522
- Synchronization tracking in pulse position modulation receiver  
[NASA-CASE-NPO-16256-1] c 32 N84-32620
- POSITIONING**
- Instrument support with precise lateral adjustment Patent  
[NASA-CASE-XMF-00480] c 14 N70-39898
- Portable alignment tool Patent  
[NASA-CASE-XMF-01452] c 15 N70-41371
- Optical alignment system Patent  
[NASA-CASE-XNP-02029] c 14 N70-41955
- Null device for hand controller Patent  
[NASA-CASE-XLA-01808] c 15 N71-20740
- Rotating raster generator  
[NASA-CASE-FRC-10071-1] c 32 N74-20813
- Low noise lead screw positioner  
[NASA-CASE-NPO-15617-1] c 35 N82-33681
- Method for terminal position determination in Earth terminal-to-satellite burst acquisition and synchronization  
[NASA-CASE-LEW-13893-1] c 32 N83-30832
- POSITIONING DEVICES (MACHINERY)**
- Swivel support for gas bearings Patent  
[NASA-CASE-XMF-07808] c 15 N71-23812
- Caterpillar micro positioner  
[NASA-CASE-GSC-10780-1] c 14 N72-16283
- Positioning mechanism  
[NASA-CASE-NPO-10679] c 15 N72-21462
- Test stand system for vacuum chambers  
[NASA-CASE-MFS-21362] c 11 N73-20267
- Method and apparatus for optically monitoring the angular position of a rotating mirror  
[NASA-CASE-GSC-11353-1] c 74 N74-21304
- Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-11213-1] c 35 N75-15014
- Reference apparatus for medical ultrasonic transducer  
[NASA-CASE-ARC-10753-1] c 54 N75-27760
- Controlled caging and uncaging mechanism  
[NASA-CASE-GSC-11063-1] c 37 N77-27400
- Workpiece positioning vise  
[NASA-CASE-GSC-12762-1] c 37 N84-28083
- POSITIVE FEEDBACK**
- Complementary regenerative switch Patent  
[NASA-CASE-XGS-02751] c 09 N71-23015
- POTABLE WATER**
- Recovery of potable water from human wastes in below-G conditions Patent  
[NASA-CASE-XLA-03213] c 05 N71-11207
- Compact solar still Patent  
[NASA-CASE-XMS-04533] c 15 N71-23086
- Specialized halogen generator for purification of water Patent  
[NASA-CASE-XLA-08913] c 14 N71-28933
- Potable water dispenser  
[NASA-CASE-MFS-21115-1] c 54 N74-12779
- Metering gun for dispensing precisely measured charges of fluid  
[NASA-CASE-MFS-21163-1] c 54 N74-17853
- Iodine generator for reclaimed water purification  
[NASA-CASE-MSC-14632-1] c 54 N78-14784
- Degassing and mixing apparatus for liquids --- potable water for spacecraft  
[NASA-CASE-MSC-18936-1] c 35 N83-29652
- POTASSIUM SILICATES**
- Fire resistant coating composition Patent  
[NASA-CASE-GSC-10072] c 18 N71-14014
- POTENTIOMETERS**
- Angle detector  
[NASA-CASE-ARC-11036-1] c 35 N78-32395
- POTENTIOMETERS (INSTRUMENTS)**
- Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073
- Control device Patent  
[NASA-CASE-XAC-10019] c 15 N71-23809
- Line following servosystem Patent  
[NASA-CASE-XAC-00001] c 15 N71-28952
- Indirect microbial detection  
[NASA-CASE-LAR-12520-1] c 51 N81-28698
- POTTING COMPOUNDS**
- Method and apparatus for shock protection Patent  
[NASA-CASE-XLA-00482] c 15 N70-36409
- Flexible, repairable, pottable material for electrical connectors Patent  
[NASA-CASE-XGS-05180] c 18 N71-25881
- Thermally conductive polymers  
[NASA-CASE-GSC-11304-1] c 06 N72-21105
- POWDER (PARTICLES)**
- Method for forming pyrrone molding powders and products of said method  
[NASA-CASE-LAR-10423-1] c 23 N82-29358
- Powder fed sheared dispersal particle generator  
[NASA-CASE-LAR-12785-1] c 37 N84-16561
- POWDER METALLURGY**
- Process of casting heavy slips Patent  
[NASA-CASE-XLE-00106] c 15 N71-16076
- Fabrication of controlled-porosity metals Patent  
[NASA-CASE-XNP-04339] c 17 N71-29137
- Method of making dry electrodes  
[NASA-CASE-FRC-10029-2] c 05 N72-25121
- Method for producing dispersion strengthened alloys by converting metal to a halide, comminuting, reducing the metal halide to the metal and sintering  
[NASA-CASE-LEW-10450-1] c 15 N72-25448
- Method of forming superalloys  
[NASA-CASE-LEW-10805-1] c 15 N73-13465
- Method of heat treating a formed powder product material  
[NASA-CASE-LEW-10805-3] c 26 N74-10521
- Method of forming articles of manufacture from superalloy powders  
[NASA-CASE-LEW-10805-2] c 37 N74-13179
- Cermet composition and method of fabrication --- heat resistant alloys and powders  
[NASA-CASE-NPO-13120-1] c 27 N76-15311
- Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670
- POWDERED ALUMINUM**
- Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206
- POWER AMPLIFIERS**
- Ac power amplifier Patent Application  
[NASA-CASE-LAR-10218-1] c 09 N70-34559
- Power supply Patent  
[NASA-CASE-XMS-02159] c 10 N71-22961
- Broadband stable power multiplier Patent  
[NASA-CASE-XNP-10854] c 10 N71-26331
- Signal path series step biased multidevice high efficiency amplifier Patent  
[NASA-CASE-GSC-10668-1] c 07 N71-28430
- Isolated output system for a class D switching-mode amplifier  
[NASA-CASE-MFS-21616-1] c 33 N75-30429
- POWER CONDITIONING**
- Module failure isolation circuit for paralleled inverters --- preventing system failure during power conditioning for spacecraft applications  
[NASA-CASE-NPO-14000-1] c 33 N79-24254
- Self-reconfiguring solar cell system  
[NASA-CASE-LEW-12586-1] c 44 N80-14472
- Solar powered actuator with continuously variable auxiliary power control  
[NASA-CASE-MFS-25637-1] c 44 N82-26780
- POWER CONVERTERS**
- Gas-to-hydraulic power converter  
[NASA-CASE-MSC-18794-1] c 44 N83-14693
- POWER EFFICIENCY**
- Low power drain semi-conductor circuit  
[NASA-CASE-XGS-04999] c 09 N69-24317
- Excitation and detection circuitry for a flux responsive magnetic head  
[NASA-CASE-XNP-04183] c 09 N69-24329
- Apparatus for increasing ion engine beam density Patent  
[NASA-CASE-XLE-00519] c 28 N70-41576
- Gaseous control system for nuclear reactors  
[NASA-CASE-XLE-04599] c 22 N72-20597
- Remote platform power conserving system  
[NASA-CASE-GSC-11182-1] c 15 N75-13007
- Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability  
[NASA-CASE-LAR-12843-1] c 02 N84-11136
- POWER FACTOR CONTROLLERS**
- Power control for ac motor  
[NASA-CASE-MFS-25862] c 33 N83-28329
- Triac failure detector  
[NASA-CASE-MFS-25607-1] c 33 N83-34190



Control system for an induction motor with energy recovery  
[NASA-CASE-MFS-25477-1] c 33 N84-14424

Motor power control circuit for ac induction motors  
[NASA-CASE-MFS-25323-1] c 33 N84-22888

**POWER GAIN**

Serrodyne frequency converter re-entrant amplifier system Patent  
[NASA-CASE-XGS-01022] c 07 N71-16088

CRT blanking and brightness control circuit  
[NASA-CASE-KSC-10647-1] c 10 N72-31273

**POWER LIMITERS**

Monostable multivibrator  
[NASA-CASE-GSC-10082-1] c 10 N72-20221

**POWER LINES**

Electrical connector for flat cables Patent  
[NASA-CASE-XMF-00324] c 09 N70-34596

Motor run-up system -- power lines  
[NASA-CASE-NPO-13374-1] c 33 N75-19524

Apparatus including a plurality of spaced transformers for locating short circuits in cables  
[NASA-CASE-KSC-10899-1] c 33 N79-18193

Shielded conductor cable system  
[NASA-CASE-MSC-12745-1] c 33 N81-27397

Electrical power generating system  
[NASA-CASE-MFS-25302-1] c 33 N83-28319

Rotatable electric cable connecting system  
[NASA-CASE-GSC-12899-1] c 33 N84-29085

**POWER SERIES**

Computing apparatus Patent  
[NASA-CASE-XGS-04765] c 08 N71-18693

Phase modulating with odd and even finite power series of a modulating signal  
[NASA-CASE-LAR-11607-1] c 32 N77-14292

**POWER SPECTRA**

Method and apparatus for high resolution spectral analysis  
[NASA-CASE-NPO-10748] c 08 N72-20177

Instrument for determining coincidence and elapse time between independent sources of random sequential events  
[NASA-CASE-LAR-12531-1] c 35 N83-29651

**POWER SUPPLIES**

Tape recorder Patent  
[NASA-CASE-XGS-08259] c 14 N71-23698

Current dependent filter inductance  
[NASA-CASE-ERC-10139] c 09 N72-17154

Power supply for carbon dioxide lasers  
[NASA-CASE-GSC-11222-1] c 16 N73-32391

High voltage distributor  
[NASA-CASE-GSC-11849-1] c 33 N76-16332

Method and apparatus for precision control of radiometer  
[NASA-CASE-NPO-15398-1] c 35 N84-22931

**POWER SUPPLY CIRCUITS**

Regulated dc to dc converter  
[NASA-CASE-XGS-03429] c 03 N69-21330

Power control circuit  
[NASA-CASE-XNP-02713] c 10 N69-39888

Electronic amplifier with power supply switching Patent  
[NASA-CASE-XMS-00945] c 09 N71-10798

Heat pipe thermionic diode power system Patent  
[NASA-CASE-XMF-05843] c 03 N71-11055

Pulsed energy power system Patent  
[NASA-CASE-MSC-13112] c 03 N71-11057

Data processor having multiple sections activated at different times by selective power coupling to the sections Patent  
[NASA-CASE-XGS-04767] c 08 N71-12494

Microwave power receiving antenna Patent  
[NASA-CASE-MFS-20333] c 09 N71-13486

Regulated power supply Patent  
[NASA-CASE-XMS-01991] c 09 N71-21449

Power supply Patent  
[NASA-CASE-XMS-02159] c 10 N71-22961

Polarity sensitive circuit Patent  
[NASA-CASE-XNP-00952] c 10 N71-23271

Power supply circuit Patent  
[NASA-CASE-XMS-00913] c 10 N71-23543

Drive circuit for minimizing power consumption in inductive load Patent  
[NASA-CASE-NPO-10716] c 09 N71-24892

Unsaturating saturable core transformer Patent  
[NASA-CASE-ERC-10125] c 09 N71-24893

Voltage dropout sensor Patent  
[NASA-CASE-KSC-10020] c 10 N71-27338

Maximum power point tracker Patent  
[NASA-CASE-GSC-10376-1] c 14 N71-27407

High power microwave power divider Patent  
[NASA-CASE-NPO-11031] c 07 N71-33606

Ripple indicator  
[NASA-CASE-KSC-10162] c 09 N72-11225

Ac to ac to dc converter having transistor synchronous rectifiers  
[NASA-CASE-GSC-11126-1] c 09 N72-25253

LC-oscillator with automatic stabilized amplitude via bias current control -- power supply circuit for transducers  
[NASA-CASE-MFS-21698-1] c 33 N74-26732

Integrable power gyrator -- with Z-matrix design using parallel transistors  
[NASA-CASE-MFS-22342-1] c 33 N75-30428

The dc-to-dc converters employing staggered-phase power switches with two-loop control  
[NASA-CASE-NPO-13512-1] c 33 N77-10428

Control for nuclear thermionic power source  
[NASA-CASE-NPO-13114-2] c 73 N78-28913

Closed Loop solar array-ion thruster system with power control circuitry  
[NASA-CASE-LEW-12780-1] c 20 N79-20179

Three phase power factor controller  
[NASA-CASE-MFS-25535-1] c 33 N81-12330

Power factor control system for ac induction motors  
[NASA-CASE-MFS-23989-1] c 33 N81-27395

Triac failure detector  
[NASA-CASE-MFS-25607-1] c 33 N83-34190

**PRECISION**

Dynamic precession damper for spin stabilized vehicles Patent  
[NASA-CASE-XLA-01989] c 21 N70-34295

**PRECIPITATION (CHEMISTRY)**

Production of pure metals  
[NASA-CASE-LEW-10906-1] c 25 N74-30502

A solvent resistant, thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-29391

**PRECISION**

Precision stepping drive Patent  
[NASA-CASE-MFS-14772] c 15 N71-17692

Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-26148

**PREFLIGHT OPERATIONS**

Automatic balancing device Patent  
[NASA-CASE-LAR-10774] c 10 N71-13545

**PRELAUNCH TESTS**

Parasitic probe antenna Patent  
[NASA-CASE-XKS-09348] c 09 N71-13521

Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15566

**PREPOLYMERS**

Novel polycarboxylic prepolymeric materials and polymers thereof Patent  
[NASA-CASE-NPO-10596] c 06 N71-25929

Curable liquid hydrocarbon prepolymers containing hydroxyl groups and process for producing same  
[NASA-CASE-NPO-13137-1] c 27 N80-32514

Prepolymer dianhydrides  
[NASA-CASE-NPO-13899-1] c 27 N80-32515

Structural wood panels with improved fire resistance  
[NASA-CASE-ARC-11174-1] c 24 N81-13999

Method for forming pyrrone molding powders and products of said method  
[NASA-CASE-LAR-10423-1] c 23 N82-29358

High performance filleting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490

Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775-1] c 27 N83-28240

Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups -- for thermoplastic resins  
[NASA-CASE-LAR-12838-1] c 27 N83-34040

**PREPREGS**

Tackifier for addition polyimides containing monoethylphthalate  
[NASA-CASE-LAR-12642-1] c 27 N81-29229

Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341

**PRESSURE**

Strain gage mounting assembly  
[NASA-CASE-NPO-13170-1] c 35 N78-14430

**PRESSURE CHAMBERS**

Electric arc driven wind tunnel Patent  
[NASA-CASE-XMF-00411] c 11 N70-38913

Whole body measurement systems -- for weightlessness simulation  
[NASA-CASE-MSC-13972-1] c 52 N74-10975

Accumulator  
[NASA-CASE-MFS-19287-1] c 34 N77-30399

Safety shield for vacuum/pressure chamber viewing port  
[NASA-CASE-GSC-12513-1] c 31 N81-19343

**PRESSURE DISTRIBUTION**

Instrument for use in performing a controlled Valsalva maneuver Patent  
[NASA-CASE-XMS-01615] c 05 N70-41329

Prevention of pressure build-up in electrochemical cells Patent  
[NASA-CASE-XGS-01419] c 03 N70-41864

Accumulator  
[NASA-CASE-MFS-19287-1] c 34 N77-30399

Thermal barrier pressure seal -- shielding junctions between spacecraft control surfaces and structures  
[NASA-CASE-MSC-18134-1] c 37 N81-15363

Continuous self-locking spiral wound seal -- for maintaining pressure between chambers in cryogenic wind tunnels  
[NASA-CASE-LAR-12315-1] c 37 N82-24490

Ultrasonic transducer with Gaussian radial pressure distribution  
[NASA-CASE-LAR-12967-1] c 35 N84-22932

**PRESSURE DROP**

Leak detector  
[NASA-CASE-MFS-21761-1] c 35 N75-15931

**PRESSURE EFFECTS**

System for stabilizing cable phase delay utilizing a coaxial cable under pressure  
[NASA-CASE-NPO-13138-1] c 33 N74-17927

Evacuated, displacement compression mold -- of tubular bodies from thermosetting plastics  
[NASA-CASE-LAR-10782-2] c 31 N75-13111

Internally supported flexible duct joint -- device for conducting fluids in high pressure systems  
[NASA-CASE-MFS-19193-1] c 37 N75-19686

Fluid pressure balanced seal  
[NASA-CASE-XGS-01286-1] c 37 N79-33469

Real time pressure signal system for a rotary engine  
[NASA-CASE-LEW-13622-1] c 07 N84-22559

Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532

**PRESSURE GAGES**

Differential pressure cell Patent  
[NASA-CASE-XAC-00042] c 14 N70-34816

Blood pressure measuring system for separating and separately recording dc signal and an ac signal Patent  
[NASA-CASE-XMS-08061] c 05 N71-23317

Apparatus for testing a pressure responsive instrument Patent  
[NASA-CASE-XMF-04134] c 14 N71-23755

Device for measuring pressure Patent  
[NASA-CASE-XAC-04458] c 14 N71-24232

Ultrahigh vacuum gauge having two collector electrodes  
[NASA-CASE-LAR-02743] c 14 N73-32324

Gas ion laser construction for electrically isolating the pressure gage thereof  
[NASA-CASE-MFS-22597] c 36 N78-17386

**PRESSURE GRADIENTS**

Positive displacement flowmeter Patent  
[NASA-CASE-MSC-02822] c 14 N70-41994

Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680

**PRESSURE HEADS**

Head for high speed spinner having a vacuum chuck -- holding silicon dioxide chips for etching  
[NASA-CASE-NPO-15227-1] c 37 N81-33482

**PRESSURE MEASUREMENT**

Inertia diaphragm pressure transducer Patent  
[NASA-CASE-XAC-02981] c 14 N71-21072

Linear differential pressure sensor Patent  
[NASA-CASE-XMF-01974] c 14 N71-22752

Device for measuring pressure Patent  
[NASA-CASE-XAC-04458] c 14 N71-24232

Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent  
[NASA-CASE-XER-11203] c 14 N71-28994

Sensing probe  
[NASA-CASE-LEW-10281-1] c 14 N72-17327

Gauge calibration by diffusion  
[NASA-CASE-XGS-07752] c 14 N73-30390

Apparatus for absolute pressure measurement  
[NASA-CASE-LAR-10000] c 14 N73-30394

Wind tunnel model and method  
[NASA-CASE-LAR-10812-1] c 09 N74-17955

Indicated mean-effective pressure instrument  
[NASA-CASE-LEW-12661-1] c 35 N79-14345

High-temperature microphone system -- for measuring pressure fluctuations in gases at high temperature  
[NASA-CASE-LAR-12375-1] c 32 N79-24203

Static pressure orifice system testing method and apparatus  
[NASA-CASE-LAR-12269-1] c 35 N80-18358

Detection of the transitional layer between laminar and turbulent flow areas on a wing surface -- using an accelerometer to measure pressure levels during wind tunnel tests  
[NASA-CASE-LAR-12261-1] c 02 N80-20224

Method of an apparatus for measuring temperature and pressure -- remote sensing of the atmosphere  
[NASA-CASE-GSC-12558-1] c 35 N82-29580

Non-invasive method and apparatus for measuring pressure within a pliable vessel  
[NASA-CASE-ARC-11264-2] c 52 N83-29991



Electronic scanning pressure measuring system and transducer package  
[NASA-CASE-ARC-11361-1] c 35 N84-22934  
Technique for measuring gas conversion factors  
[NASA-CASE-LAR-13220-1] c 35 N84-32786  
Volumetric fuel quantity gauge  
[NASA-CASE-LAR-13147-1] c 35 N84-32787

**PRESSURE REDUCTION**

Relief valve  
[NASA-CASE-XMS-05894-1] c 15 N69-21924  
Sealed battery gas manifold construction Patent  
[NASA-CASE-XNP-03378] c 03 N71-11051  
Depressurization of arc lamps  
[NASA-CASE-NPO-10790-1] c 33 N77-21316  
Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229  
Pressure letdown method and device for coal conversion systems  
[NASA-CASE-NPO-15100-1] c 44 N84-14583  
Method of making an ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095

**PRESSURE REGULATORS**

Pressure regulating system Patent  
[NASA-CASE-XNP-00450] c 15 N70-38603  
Resuscitation apparatus Patent  
[NASA-CASE-XMS-01115] c 05 N70-39922  
High pressure regulator valve Patent  
[NASA-CASE-XNP-00710] c 15 N71-10778  
Space suit pressure stabilizer Patent  
[NASA-CASE-XLA-05332] c 05 N71-11194  
Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203  
Anti-backlash circuit for hydraulic drive system Patent  
[NASA-CASE-XNP-01020] c 03 N71-12260  
High impact pressure regulator Patent  
[NASA-CASE-NPO-10175] c 14 N71-18625  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332] c 05 N72-20097  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332-2] c 05 N72-25125  
Combined pressure regulator and shutoff valve  
[NASA-CASE-NPO-13201-1] c 37 N75-15050  
Pressure modulating valve  
[NASA-CASE-MSC-14905-1] c 37 N77-28487  
Flow compensating pressure regulator  
[NASA-CASE-LEW-12718-1] c 34 N78-25351  
Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N79-33468  
Intra-ocular pressure normalization technique and equipment  
[NASA-CASE-LEW-12955-1] c 52 N80-14684  
Intra-ocular pressure normalization technique and equipment  
[NASA-CASE-LEW-12723-1] c 52 N80-18690  
Pressure control valve — inflating flexible bladders  
[NASA-CASE-ARC-11251-1] c 37 N81-17433  
Prosthetic urinary sphincter  
[NASA-CASE-MFS-23717-1] c 52 N81-25660  
Fluid driven sump pump  
[NASA-CASE-ARC-11414-1] c 37 N83-20152  
Ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-1] c 52 N83-21785  
Vibration isolation and pressure compensation apparatus for sensitive instrumentation  
[NASA-CASE-LAR-12728-1] c 35 N83-32026  
Apparatus and method for jet noise suppression  
[NASA-CASE-LAR-11903-2] c 71 N84-14873

**PRESSURE SENSORS**

Pressure variable capacitor  
[NASA-CASE-XNP-09752] c 14 N69-21541  
Aerodynamic measuring device Patent  
[NASA-CASE-XLA-00481] c 14 N70-36824  
Check valve assembly for a probe Patent  
[NASA-CASE-XLA-00128] c 15 N70-37925  
Dynamic sensor Patent  
[NASA-CASE-XAC-02877] c 14 N70-41681  
Inertia diaphragm pressure transducer Patent  
[NASA-CASE-XAC-02981] c 14 N71-21072  
Linear differential pressure sensor Patent  
[NASA-CASE-XMF-01974] c 14 N71-22752  
Pressure transducer calibrator Patent  
[NASA-CASE-XNP-01660] c 14 N71-23036  
Instrument for measuring the dynamic behavior of liquids Patent  
[NASA-CASE-XLA-05541] c 12 N71-26387  
Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334  
Method of making pressurized panel Patent  
[NASA-CASE-XLA-08916] c 15 N71-29018  
Sensing probe  
[NASA-CASE-LEW-10281-1] c 14 N72-17327  
Pressure transducer  
[NASA-CASE-NPO-10832] c 14 N72-21405

Pressure operated electrical switch responsive to a pressure decrease after a pressure increase  
[NASA-CASE-LAR-10137-1] c 09 N72-22204  
Wide range dynamic pressure sensor  
[NASA-CASE-ARC-10263-1] c 14 N72-22438  
Differential pressure control  
[NASA-CASE-MFS-14216] c 14 N73-13418  
Pressurized panel  
[NASA-CASE-XLA-08916-2] c 14 N73-28487  
System for calibrating pressure transducer  
[NASA-CASE-LAR-10910-1] c 35 N74-13132  
Stagnation pressure probe — for measuring pressure of supersonic gas streams  
[NASA-CASE-LAR-11139-1] c 35 N74-32878  
Circuit for detecting initial systole and diastolic notch — for monitoring arterial pressure  
[NASA-CASE-LEW-11581-1] c 54 N75-13531  
Leak detector  
[NASA-CASE-MFS-21761-1] c 35 N75-15931  
Measurement of gas production of microorganisms — using pressure sensors  
[NASA-CASE-LAR-11326-1] c 35 N75-33368  
Static pressure probe  
[NASA-CASE-LAR-11552-1] c 35 N76-14429  
Trielectrode capacitive pressure transducer  
[NASA-CASE-ARC-10711-2] c 33 N76-21390  
Catheter tip force transducer for cardiovascular research  
[NASA-CASE-NPO-13643-1] c 52 N76-29896  
Miniature biaxial strain transducer  
[NASA-CASE-LAR-11648-1] c 35 N77-14407  
Pressure transducer — using a monomeric charge transfer complex sensor  
[NASA-CASE-NPO-11150] c 35 N78-17359  
Electronically scanned pressure sensor module with in situ calibration capability  
[NASA-CASE-LAR-12230-1] c 35 N79-14347  
System for use in conducting wake investigation for a wing in flight — differential pressure measurements for drag investigations  
[NASA-CASE-FRC-11024-1] c 02 N80-28300  
Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-16027-1] c 33 N83-29595  
Automatic compression adjusting mechanism for internal combustion engines  
[NASA-CASE-MSC-18807-1] c 37 N83-36483  
Self-correcting electronically scanned pressure sensor  
[NASA-CASE-LAR-12686-1] c 35 N84-14491  
Electronic scanning pressure measuring system and transducer package  
[NASA-CASE-ARC-11361-1] c 35 N84-22934

**PRESSURE SUITS**

Pressure suit tie-down mechanism Patent  
[NASA-CASE-XMS-00784] c 05 N71-12335  
Pressure garment joint Patent  
[NASA-CASE-XMS-09638] c 05 N71-12344  
Omnidirectional joint Patent  
[NASA-CASE-XMS-09635] c 05 N71-24623  
Foreshortened convolute section for a pressurized suit Patent  
[NASA-CASE-XMS-09637-1] c 05 N71-24730  
Method of forming a root cord restrained convolute section  
[NASA-CASE-MSC-12398] c 05 N72-20098  
Restraint torso for a pressurized suit  
[NASA-CASE-MSC-12397-1] c 05 N72-25119  
Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546  
Walking boot assembly  
[NASA-CASE-ARC-11101-1] c 54 N78-17675  
Pressure suit joint analyzer  
[NASA-CASE-ARC-11314-1] c 54 N82-26987  
Method and apparatus for simulating gravitational forces on a living organism  
[NASA-CASE-MSC-20202-1] c 54 N84-16803

**PRESSURE SWITCHES**

Reinforcing means for diaphragms Patent  
[NASA-CASE-XNP-01962] c 32 N70-41370  
Calibrating pressure switch  
[NASA-CASE-XMF-04494-1] c 33 N79-33392  
Volumetric fuel quantity gauge  
[NASA-CASE-LAR-13147-1] c 35 N84-32787

**PRESSURE VESSELS**

Liquid rocket system Patent  
[NASA-CASE-XNP-00610] c 28 N70-36910  
Thin-walled pressure vessel Patent  
[NASA-CASE-XLE-04677] c 15 N71-10577  
Gas regulator Patent  
[NASA-CASE-NPO-10298] c 12 N71-17661  
Controlled glass bead peening Patent  
[NASA-CASE-XLA-07390] c 15 N71-18616  
Heater-mixer for stored fluids  
[NASA-CASE-ARC-10442-1] c 35 N74-15093  
Method and apparatus for nondestructive testing of pressure vessels  
[NASA-CASE-NPO-12142-1] c 38 N76-28563

Gas compression apparatus  
[NASA-CASE-MSC-14757-1] c 35 N78-10428  
Pressure control valve — inflating flexible bladders  
[NASA-CASE-ARC-11251-1] c 37 N81-17433  
Method and apparatus for growth of crystals by pressure reduction of supercritical or subcritical solution  
[NASA-CASE-NPO-15772-1] c 76 N82-23031  
Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784  
Oxygen recombination in individual pressure vessel nickel-hydrogen batteries  
[NASA-CASE-LEW-13822-1] c 33 N84-29084

**PRESSURE WELDING**

Diffusion welding — heat treatment of nickel alloys following single step vacuum welding process  
[NASA-CASE-LEW-11388-2] c 37 N74-21055

**PRESSURIZING**

Restraining mechanism  
[NASA-CASE-MSC-13054] c 54 N78-17677

**PRESTRESSING**

Prestressed refractory structure Patent  
[NASA-CASE-XNP-02888] c 18 N71-21068  
Method of manufacture of bonded fiber flywheel — fiberglass-epoxy  
[NASA-CASE-MFS-23874-1] c 24 N81-29163  
Apparatus for accurately preloading auger attachment means for frangible protective material  
[NASA-CASE-MSC-18791-1] c 37 N83-36482

**PRETREATMENT**

Pretreatment method for anti-wettable materials  
[NASA-CASE-XMS-03537] c 15 N69-21471  
Apparatus for accurately preloading auger attachment means for frangible protective material  
[NASA-CASE-MSC-18791-1] c 37 N83-36482

**PRINTED CIRCUITS**

Electrical feed-through connection for printed circuit boards and printed cable  
[NASA-CASE-XMF-01483] c 14 N69-27431  
Printed cable connector Patent  
[NASA-CASE-XMF-00369] c 09 N70-36494  
Printed circuit board with bellows rivet connection Patent  
[NASA-CASE-XNP-05082] c 15 N70-41960  
Electrical spot terminal assembly Patent  
[NASA-CASE-NPO-10034] c 15 N71-17685  
Method of coating circuit paths on printed circuit boards with solder Patent  
[NASA-CASE-XMF-01599] c 09 N71-20705  
Device for handling printed circuit cards Patent  
[NASA-CASE-MFS-20453] c 15 N71-29133  
Polyimide resin-fiberglass cloth laminates for printed circuit boards  
[NASA-CASE-MFS-20408] c 18 N73-12604  
Circuit board package with wedge shaped covers  
[NASA-CASE-MFS-21919-1] c 10 N73-25243  
Device for configuring multiple leads — method for connecting electric leads to printed circuit board  
[NASA-CASE-MFS-22133-1] c 33 N74-26977  
Connector — for connecting circuits on different layers of multilayer printed circuit boards  
[NASA-CASE-LAR-11709-1] c 37 N76-27567  
Controlled caging and uncaging mechanism  
[NASA-CASE-GSC-11063-1] c 37 N77-27400  
Solar array strip and a method for forming the same  
[NASA-CASE-NPO-13652-1] c 44 N79-17314  
Screen printed interdigitated back contact solar cell  
[NASA-CASE-LEW-13414-1] c 44 N83-20374

**PRINTING**

Application of semiconductor diffusers to solar cells by screen printing  
[NASA-CASE-LEW-12775-1] c 44 N79-11468  
Multicolor printing plate joining  
[NASA-CASE-LEW-13598-1] c 35 N84-22930

**PRINTOUTS**

Device for handling printed circuit cards Patent  
[NASA-CASE-MFS-20453] c 15 N71-29133

**PRISMS**

Interferometric rotation sensor  
[NASA-CASE-ARC-10278-1] c 14 N73-25463  
Method and apparatus for splitting a beam of energy — optical communication  
[NASA-CASE-GSC-12083-1] c 73 N78-32848  
Multiprism collimator  
[NASA-CASE-GSC-12608-1] c 74 N83-10900  
Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978  
Laser Resonator  
[NASA-CASE-GSC-12565-1] c 36 N84-14509

**PROBABILITY THEORY**

System and method for character recognition  
[NASA-CASE-NPO-11337-1] c 74 N81-19896

## PROBES

- Method and apparatus for securing to a spacecraft Patent  
[NASA-CASE-MFS-11133] c 31 N71-16222
- Droplet monitoring probe  
[NASA-CASE-NPO-10985] c 14 N73-20478
- System and method for moving a probe to follow movements of tissue  
[NASA-CASE-NPO-15197-1] c 52 N83-25346

## PROCESS CONTROL (INDUSTRY)

- Photoelectric detection system --- manufacturing automation  
[NASA-CASE-MFS-23776-1] c 33 N82-28545

## PRODUCT DEVELOPMENT

- Technique of duplicating fragile core  
[NASA-CASE-XLA-07829] c 15 N72-16329
- Tube fabricating process  
[NASA-CASE-LAR-10203-1] c 15 N72-16330
- Process for making diamonds  
[NASA-CASE-MFS-20698-2] c 15 N73-19457
- High power laser apparatus and system  
[NASA-CASE-XLE-2529-2] c 36 N75-27364
- Induced junction solar cell and method of fabrication  
[NASA-CASE-NPO-13786-1] c 44 N80-29835
- Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242
- Ion-exchange hollow fibers  
[NASA-CASE-NPO-13309-1] c 25 N81-19244
- Precision heat forming of tetrafluoroethylene tubing  
[NASA-CASE-MSC-18430-1] c 37 N82-24491
- Fiber optic crossbar switch for automatically patching optical signals  
[NASA-CASE-KSC-11104-1] c 74 N83-29032
- Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854

## PRODUCTION ENGINEERING

- Indexed keyed connection Patent  
[NASA-CASE-XMS-02532] c 15 N70-41808
- Method and apparatus for making curved reflectors Patent  
[NASA-CASE-XLE-08917] c 15 N71-15597
- Method of making self lubricating fluoride-metal composite materials Patent  
[NASA-CASE-XLE-08511-2] c 18 N71-16105
- Method of making impurity-type semiconductor electrical contacts Patent  
[NASA-CASE-XMF-01016] c 26 N71-17818
- Method of making inflatable honeycomb Patent  
[NASA-CASE-XLA-03492] c 15 N71-22713
- Multilayer porous ionizer Patent  
[NASA-CASE-XNP-04338] c 17 N71-23046
- Ion engine casing construction and method of making same Patent  
[NASA-CASE-XNP-06942] c 28 N71-23293
- Flexible conductive disc electrode Patent  
[NASA-CASE-FRC-10029] c 09 N71-24618
- Star tracking reticles  
[NASA-CASE-GSC-11188-1] c 14 N73-32320
- Process for making sheets with parallel pores of uniform size  
[NASA-CASE-GSC-10984-1] c 37 N75-26371
- Solar cell collector and method for producing same  
[NASA-CASE-LEW-12552-2] c 44 N79-11472
- Multilevel metallization method for fabricating a metal oxide semiconductor device  
[NASA-CASE-MFS-23541-1] c 76 N79-14906
- Solar array strip and a method for forming the same  
[NASA-CASE-NPO-13652-1] c 44 N79-17314
- Method of fabricating a photovoltaic module of a substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550
- Apparatus for use in the production of ribbon-shaped crystals from a silicon melt  
[NASA-CASE-NPO-14297-1] c 33 N81-19389
- Method and apparatus for producing concentric hollow spheres --- inertial confinement fusion targets  
[NASA-CASE-NPO-14596-1] c 31 N81-33319
- Apparatus for sequentially transporting containers  
[NASA-CASE-MFS-23846-1] c 37 N82-32731
- Solar cell having improved back surface reflector  
[NASA-CASE-LEW-13620-1] c 44 N83-13579
- Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811
- Method of increasing minority carrier lifetime in silicon web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888
- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884

## PROJECTILES

- Self-obturator, gas operated launcher  
[NASA-CASE-NPO-11013] c 11 N72-22247
- Two stage light gas-plasma projectile accelerator  
[NASA-CASE-MFS-22287-1] c 75 N76-14931

## PROJECTION

- Projection system for display of parallax and perspective  
[NASA-CASE-MFS-23194-1] c 35 N78-17357

## PROJECTIVE GEOMETRY

- Projection system for display of parallax and perspective  
[NASA-CASE-MFS-23194-1] c 35 N78-17357

## PROJECTORS

- Optical projector system Patent  
[NASA-CASE-XNP-03853] c 23 N71-21882
- System and method for obtaining wide screen Schlieren photographs  
[NASA-CASE-NPO-14174-1] c 74 N79-20856

## PROPAGATION MODES

- Dual waveguide mode source having control means for adjusting the relative amplitude of two modes Patent  
[NASA-CASE-XNP-03134] c 07 N71-10676

## PROPARGYL GROUPS

- Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746

## PROPELLANT ACTUATED INSTRUMENTS

- Pressure limiting propellant actuating system  
[NASA-CASE-MSC-18179-1] c 20 N80-18097

## PROPELLANT ADDITIVES

- Inhibited solid propellant composition containing beryllium hydride  
[NASA-CASE-NPO-10866-1] c 28 N79-14228

## PROPELLANT BINDERS

- Method of forming difunctional polyisobutylene  
[NASA-CASE-NPO-10893] c 27 N73-22710
- Recovery of aluminum from composite propellants  
[NASA-CASE-NPO-14110-1] c 28 N81-15119

## PROPELLANT CASTING

- Casting propellant in rocket engine  
[NASA-CASE-LAR-11995-1] c 28 N77-10213
- Solid propellant rocket motor and method of making same  
[NASA-CASE-XLA-1349] c 20 N77-17143

## PROPELLANT CHEMISTRY

- Nitramine propellants --- gun propellant burning rate  
[NASA-CASE-NPO-14103-1] c 28 N78-31255

## PROPELLANT COMBUSTION

- Spherically-shaped rocket motor Patent  
[NASA-CASE-XHQ-01897] c 28 N70-35381
- Control of transverse instability in rocket combustors  
[NASA-CASE-XLE-04603] c 33 N71-21507

## PROPELLANT DECOMPOSITION

- Decomposition unit Patent  
[NASA-CASE-XMS-00583] c 28 N70-38504

## PROPELLANT GRAINS

- Propellant grain for rocket motors Patent  
[NASA-CASE-XGS-03556] c 27 N70-35534

## PROPELLANT TANKS

- Liquid rocket system Patent  
[NASA-CASE-XNP-00610] c 28 N70-36910
- Slosh suppressing device and method Patent  
[NASA-CASE-XMF-00658] c 12 N70-38997
- Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233
- Zero gravity starting means for liquid propellant motors Patent  
[NASA-CASE-XNP-01390] c 28 N70-41275
- Tank construction for space vehicles Patent  
[NASA-CASE-XMF-01899] c 31 N70-41948
- Method and apparatus for detection and location of microleaks Patent  
[NASA-CASE-XMF-02307] c 14 N71-10779
- Method of making a filament-wound container Patent  
[NASA-CASE-XLE-03803-2] c 15 N71-17651
- Slosh alleviator Patent  
[NASA-CASE-XLA-05749] c 15 N71-19569
- Booster tank system Patent  
[NASA-CASE-MSC-12390] c 27 N71-29155
- Space vehicle system  
[NASA-CASE-MSC-12561-1] c 18 N76-17185
- Passive propellant system  
[NASA-CASE-MFS-23642-2] c 20 N78-27176
- Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784
- Three stage rocket vehicle with parallel staging  
[NASA-CASE-MFS-25878-1] c 18 N84-27787

## PROPELLANT TRANSFER

- Fluid coupling Patent  
[NASA-CASE-XLE-00397] c 15 N70-36492
- Apparatus for transferring cryogenic liquids Patent  
[NASA-CASE-XLE-00345] c 15 N70-38020
- Method for continuous variation of propellant flow and thrust in propulsive devices Patent  
[NASA-CASE-XLE-00177] c 28 N70-40367
- Fluid dispensing apparatus and method Patent  
[NASA-CASE-XLE-01182] c 27 N71-15635

- Electrostatic ion rocket engine Patent  
[NASA-CASE-XLE-02066] c 28 N71-15661
- Control of transverse instability in rocket combustors Patent

- [NASA-CASE-XLE-04603] c 33 N71-21507
- Vapor liquid separator Patent  
[NASA-CASE-XMF-04042] c 15 N71-23023

- Filler valve Patent  
[NASA-CASE-XNP-01747] c 15 N71-23024
- Propellant feed isolator Patent  
[NASA-CASE-LEW-10210-1] c 28 N71-26781

- Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937
- Passive propellant system  
[NASA-CASE-MFS-23642-2] c 20 N78-27176

- Three stage rocket vehicle with parallel staging  
[NASA-CASE-MFS-25878-1] c 18 N84-27787

- PROPELLER BLADES
- Propeller blade loading control Patent  
[NASA-CASE-XAC-00139] c 02 N70-34856

- PROPELLERS
- Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495

- Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733

- PROPORTIONAL CONTROL
- Proportional controller Patent  
[NASA-CASE-XAC-03392] c 03 N70-41954

- PROPLUSION SYSTEM CONFIGURATIONS
- Electro-thermal rocket Patent  
[NASA-CASE-XLE-00267] c 28 N70-33356

- Propellant grain for rocket motors Patent  
[NASA-CASE-XGS-03556] c 27 N70-35534
- Composite powerplant and shroud therefor Patent  
[NASA-CASE-XLA-01043] c 28 N71-10780

- Annular slit colloid thruster Patent  
[NASA-CASE-GSC-10709-1] c 28 N71-25213
- Propellant tank pressurization system Patent  
[NASA-CASE-XNP-00650] c 27 N71-28929

- Apparatus for endoscopic examination --- analysis of the propulsion system configuration and transmitter  
[NASA-CASE-NPO-14092-1] c 52 N80-16725
- Propulsion apparatus and method using boil-off gas from a cryogenic liquid --- controlling spacecraft attitude and drag  
[NASA-CASE-MFS-25946-1] c 20 N84-15183

- Aerospace vehicle  
[NASA-CASE-LAR-13155-1] c 18 N84-20628

- PROPLUSION SYSTEM PERFORMANCE
- Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067

- PROSTHETIC DEVICES
- Tactile sensing means for prosthetic limbs  
[NASA-CASE-MFS-16570-1] c 05 N73-32013

- Orthotic arm joint --- for use in mechanical arms  
[NASA-CASE-MFS-21611-1] c 54 N75-12616
- Actuator device for artificial leg  
[NASA-CASE-MFS-23225-1] c 52 N77-14735

- Aldehyde-containing urea-absorbing polysaccharides  
[NASA-CASE-NPO-13620-1] c 27 N77-30236
- Rotational joint assembly for the prosthetic leg  
[NASA-CASE-KSC-11004-1] c 54 N77-30749

- Mechanical energy storage device for hip disarticulation  
[NASA-CASE-ARC-10916-1] c 52 N78-10686
- Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement  
[NASA-CASE-NPO-13764-1] c 27 N78-17215

- Compact artificial hand  
[NASA-CASE-NPO-13906-1] c 54 N79-24652
- Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772

- Prosthetic urinary sphincter  
[NASA-CASE-MFS-23717-1] c 52 N81-25660
- Texturing polymer surfaces by transfer casting --- cardiovascular prosthesis  
[NASA-CASE-LEW-13120-1] c 27 N82-28440

- Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744

- PROTECTION
- Apparatus and method for protecting a photographic device Patent  
[NASA-CASE-NPO-10174] c 14 N71-18465

- Fiber modified polyurethane foam for ballistic protection  
[NASA-CASE-ARC-10714-1] c 27 N76-15310

- PROTECTIVE CLOTHING
- Process for conditioning tanned sharkskin and articles made therefrom Patent  
[NASA-CASE-XMS-09691-1] c 18 N71-15545

- Biological isolation garment Patent  
[NASA-CASE-MSC-12206-1] c 05 N71-17599
- Garments for controlling the temperature of the body Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147

Foreshortened convolute section for a pressurized suit Patent  
[NASA-CASE-XMS-09637-1] c 05 N71-24730  
Protective suit having an audio transceiver Patent  
[NASA-CASE-KSC-10164] c 07 N71-33108  
Protective garment ventilation system  
[NASA-CASE-XMS-04928] c 54 N78-17679  
Vitra-violet process for producing flame resistant polyamides and products produced thereby --- protective clothing for high oxygen environments  
[NASA-CASE-MSC-16074-1] c 27 N80-26446  
Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-2] c 54 N84-23113

**PROTECTIVE COATINGS**  
Coating process  
[NASA-CASE-XNP-06508] c 18 N69-39895  
Alkali-metal silicate protective coating  
[NASA-CASE-XGS-04119] c 18 N69-39979  
Process for applying a protective coating for salt bath brazing Patent  
[NASA-CASE-XLE-00046] c 15 N70-33311  
Method and apparatus for shock protection Patent  
[NASA-CASE-XLA-00482] c 15 N70-36409  
Thermal control of space vehicles Patent  
[NASA-CASE-XLA-01291] c 33 N70-36617  
Process for preparing sterile solid propellants Patent  
[NASA-CASE-XNP-01749] c 27 N70-41897  
Fire resistant coating composition Patent  
[NASA-CASE-GSC-10072] c 18 N71-14014  
Bacteriostatic conformal coating and methods of application Patent  
[NASA-CASE-GSC-10007] c 18 N71-16046  
Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00284] c 15 N71-16075  
Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00302] c 15 N71-16077  
Aerodynamic protection for space flight vehicles Patent  
[NASA-CASE-XNP-02507] c 31 N71-17679  
Heat protection apparatus Patent  
[NASA-CASE-XLA-00892] c 33 N71-17897  
Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent  
[NASA-CASE-XGS-02011] c 15 N71-20739  
Alkali metal silicate protective coating Patent  
[NASA-CASE-XGS-04799] c 18 N71-24183  
Process for reducing secondary electron emission Patent  
[NASA-CASE-XNP-09469] c 24 N71-25555  
Solid state thermal control polymer coating Patent  
[NASA-CASE-XLA-01745] c 33 N71-28903  
Method of coating through-holes Patent  
[NASA-CASE-XMF-05999] c 15 N71-29032  
Potassium silicate zinc coatings  
[NASA-CASE-GSC-10361-1] c 18 N72-23581  
Method of coating solar cell with borosilicate glass and resultant product  
[NASA-CASE-GSC-11514-1] c 03 N72-24037  
Semiconductor surface protection material  
[NASA-CASE-ERC-10339-1] c 18 N73-30532  
Nonflammable coating compositions --- for use in high oxygen environments  
[NASA-CASE-MFS-20486-2] c 27 N74-17283  
Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components  
[NASA-CASE-LEW-11179-1] c 27 N76-16229  
High temperature oxidation resistant cermet compositions  
[NASA-CASE-NPO-13666-1] c 27 N77-13217  
Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-19170  
Intumescent coatings containing 4,4'-dinitrosulfanilide  
[NASA-CASE-ARC-11042-1] c 24 N78-14096  
Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290  
Reaction cured glass and glass coatings  
[NASA-CASE-ARC-11051-1] c 27 N78-32260  
Infusible silazane polymer and process for producing same --- protective coatings  
[NASA-CASE-XMF-02526-1] c 27 N79-21190  
Fire protection covering for small diameter missiles  
[NASA-CASE-ARC-11104-1] c 15 N79-26100  
Improved refractory coatings --- sputtered coatings on substrates that form stable nitrides  
[NASA-CASE-LEW-23169-2] c 26 N81-16209  
Corrosion resistant thermal barrier coating --- protecting gas turbines and other engine parts  
[NASA-CASE-LEW-13088-1] c 26 N81-25188  
Heat sealable, flame and abrasion resistant coated fabric --- clothing and containers for space exploration  
[NASA-CASE-MSC-18382-1] c 27 N82-16238

Method of protecting a surface with a silicon-slurry/aluminide coating --- coatings for gas turbine engine blades and vanes  
[NASA-CASE-LEW-13343-1] c 27 N82-28441  
Improved nickel base coating alloy --- oxidation resistant coatings  
[NASA-CASE-LEW-13834-1] c 26 N83-24639  
Curved film cooling admission tube  
[NASA-CASE-LEW-13174-1] c 34 N83-27144  
High voltage isolation transformer  
[NASA-CASE-GSC-12817-1] c 33 N83-29590  
Silicon-slurry/aluminide coating --- protecting gas turbine engine vanes and blades  
[NASA-CASE-LEW-13343] c 26 N83-31795  
Covering solid, film cooled surfaces with a duplex thermal barrier coating  
[NASA-CASE-LEW-13450-1] c 31 N83-35177  
Corrosion resistant coating  
[NASA-CASE-NPO-15928-1] c 26 N84-12289  
Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324  
Oxidation resistant slurry coating for carbon-based materials  
[NASA-CASE-LEW-13923-1] c 24 N84-16266  
Method and apparatus for coating substrates using a laser  
[NASA-CASE-LEW-13526-1] c 36 N84-22944  
Coated flexible laminate and method of its production  
[NASA-CASE-GSC-12913-1] c 27 N84-24807  
Coating with overlay metallic-cermet alloy systems  
[NASA-CASE-LEW-13639-2] c 26 N84-27855  
Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986  
Overlay metallic-cermet alloy coating systems  
[NASA-CASE-LEW-13639-1] c 26 N84-33555  
Improved thermal barrier coating system  
[NASA-CASE-LEW-14057-1] c 27 N84-33595

**PROTECTORS**  
Load cell protection device Patent  
[NASA-CASE-XMS-06782] c 32 N71-15974  
Omnidirectional multiple impact landing system Patent  
[NASA-CASE-XLA-09881] c 31 N71-16085  
Protective telescoping shield for solar concentrator  
[NASA-CASE-NPO-16236-1] c 44 N84-25164

**PROTEINS**  
Protein sterilization method of firefly luciferase using reduced pressure and molecular sieves  
[NASA-CASE-GSC-10225-1] c 06 N73-27086

**PROTON FLUX DENSITY**  
Flame detector operable in presence of proton radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410

**PROXIMITY**  
Focal plane array optical proximity sensor  
[NASA-CASE-NPO-15155-1] c 74 N81-22894

**PSEUDONOISE**  
Rapid sync acquisition system Patent  
[NASA-CASE-NPO-10214] c 10 N71-26577  
Pseudonoise sequence generators with three tap linear feedback shift registers  
[NASA-CASE-NPO-11406] c 08 N73-12175  
Two carrier communication system with single transmitter  
[NASA-CASE-NPO-11548] c 07 N73-26118  
Pseudo-noise test set for communication system evaluation --- test signals  
[NASA-CASE-MFS-22671-1] c 35 N75-21582  
Pseudonoise code tracking loop  
[NASA-CASE-MSC-18035-1] c 32 N81-15179

**PULLEYS**  
Tension measurement device Patent  
[NASA-CASE-XMS-04545] c 15 N71-22878  
Tensile strength testing device Patent  
[NASA-CASE-XNP-05634] c 15 N71-24834

**PULMONARY CIRCULATION**  
Resuscitation apparatus Patent  
[NASA-CASE-XMS-01115] c 05 N70-39922

**PULMONARY FUNCTIONS**  
Instrument for use in performing a controlled Valsalva maneuver Patent  
[NASA-CASE-XMS-01615] c 05 N70-41329

**PULSE AMPLITUDE**  
System for monitoring signal amplitude ranges  
[NASA-CASE-XMS-04061-1] c 09 N69-39885  
Analog to digital converter Patent  
[NASA-CASE-XLA-00670] c 08 N71-12501  
Pulse amplitude and width detector Patent  
[NASA-CASE-XMF-06519] c 09 N71-12519  
Analog-to-digital converter  
[NASA-CASE-XNP-00477] c 08 N73-28045  
Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-11389-1] c 33 N77-26387  
Speech analyzer  
[NASA-CASE-GSC-11898-1] c 32 N77-30309

Power factor control system for ac induction motors  
[NASA-CASE-MFS-23988-1] c 33 N81-27395  
Video processor for air traffic control beacon system  
[NASA-CASE-KSC-11155-1] c 33 N84-15395

**PULSE AMPLITUDE MODULATION**  
Signal ratio system utilizing voltage controlled oscillators Patent  
[NASA-CASE-XMF-04367] c 09 N71-23545  
Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418

**PULSE CODE MODULATION**  
Adaptive compression of communication signals Patent  
[NASA-CASE-XLA-03076] c 07 N71-11266  
Bi-polar phase detector and corrector for split phase PCM data signals Patent  
[NASA-CASE-XGS-01590] c 07 N71-12392  
System for recording and reproducing pulse code modulated data Patent  
[NASA-CASE-XGS-01021] c 08 N71-21042  
Frequency shift keying apparatus Patent  
[NASA-CASE-XGS-01537] c 07 N71-23405  
Data compression system  
[NASA-CASE-NPO-11243] c 07 N72-20154  
Method and apparatus for frequency-division multiplex communications by digital phase shift of carrier  
[NASA-CASE-NPO-11338] c 08 N72-25208  
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system  
[NASA-CASE-NPO-11302-1] c 07 N73-13149  
Method and apparatus for a single channel digital communications system --- synchronization of received PCM signal by digital correlation with reference signal  
[NASA-CASE-NPO-11302-2] c 32 N74-10132  
Multifunction audio digitizer --- producing direct delta and pulse code modulation  
[NASA-CASE-MSC-13855-1] c 35 N74-17885  
Pulse code modulated signal synchronizer  
[NASA-CASE-MSC-12462-1] c 32 N74-20809  
Pulse code modulated signal synchronizer  
[NASA-CASE-MSC-12494-1] c 32 N74-20810  
Digital transmitter for data bus communications system  
[NASA-CASE-MSC-14558-1] c 32 N75-21486  
Compact bi-phase pulse coded modulation decoder  
[NASA-CASE-KSC-10834-1] c 33 N76-14371  
Low distortion receiver for bi-level baseband PCM waveforms  
[NASA-CASE-MSC-14557-1] c 32 N76-18249  
Differential pulse code modulation  
[NASA-CASE-MSC-12506-1] c 32 N77-12239  
Digital demodulator  
[NASA-CASE-LAR-12659-1] c 33 N82-26570

**PULSE COMMUNICATION**  
Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent  
[NASA-CASE-XNP-00911] c 08 N70-41961  
Differential pulse code modulation  
[NASA-CASE-MSC-12506-1] c 32 N77-12239  
Memory-based frame synchronizer --- for digital communication systems  
[NASA-CASE-GSC-12430-1] c 60 N82-16747

**PULSE DURATION**  
Frequency to analog converter Patent  
[NASA-CASE-XNP-07040] c 08 N71-12500  
Pulse amplitude and width detector Patent  
[NASA-CASE-XMF-06519] c 09 N71-12519  
Variable pulse width multiplier Patent  
[NASA-CASE-XLA-02850] c 09 N71-20447  
Pulse width inverter Patent  
[NASA-CASE-MFS-10068] c 10 N71-25139  
Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent  
[NASA-CASE-ARC-10137-1] c 09 N71-28468  
Pulse stretcher for narrow pulses  
[NASA-CASE-MSC-14130-1] c 33 N74-32711

**PULSE DURATION MODULATION**  
Pulse-width modulation multiplier Patent  
[NASA-CASE-XER-09213] c 07 N71-12390  
Variable duration pulse integrator Patent  
[NASA-CASE-XLA-01219] c 10 N71-23084  
Transistor servo system including a unique differential amplifier circuit Patent  
[NASA-CASE-XMF-05195] c 10 N71-24861  
Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
[NASA-CASE-XGS-04224] c 10 N71-26418  
Monostable multivibrator with complementary NOR gates Patent  
[NASA-CASE-MSC-13492-1] c 10 N71-28860  
Load current sensor for a series pulse width modulated power supply  
[NASA-CASE-GSC-10656-1] c 09 N72-25249  
Buck/boost regulator  
[NASA-CASE-GSC-12360-1] c 33 N81-19392

## PULSE FREQUENCY MODULATION

- Apparatus for measuring current flow Patent  
[NASA-CASE-XGS-02439] c 14 N71-19431
- Digitally controlled frequency synthesizer Patent  
[NASA-CASE-XGS-02317] c 09 N71-23525
- Noninterruptable digital counting system Patent  
[NASA-CASE-XNP-09759] c 08 N71-24891
- Frequency modulation demodulator threshold extension device Patent  
[NASA-CASE-MS-12165-1] c 07 N71-33696
- Versatile LDV burst simulator  
[NASA-CASE-LAR-11859-1] c 35 N79-14349

## PULSE GENERATORS

- High voltage pulse generator Patent  
[NASA-CASE-MS-12178-1] c 09 N71-13518
- Flipflop interrogator and bi-polar current driver Patent  
[NASA-CASE-XGS-03058] c 10 N71-19547
- Pulse modulator providing fast rise and fall times Patent  
[NASA-CASE-XMS-04919] c 09 N71-23270
- Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent  
[NASA-CASE-XGS-03632] c 09 N71-23311
- Resettable monostable pulse generator Patent  
[NASA-CASE-GSC-11139] c 09 N71-27016
- Pulse generating circuit employing switch means on ends of delay line for alternately charging and discharging same Patent  
[NASA-CASE-XNP-00745] c 10 N71-28960
- Pulse coupling circuit  
[NASA-CASE-LEW-10433-1] c 09 N72-22197
- Method and apparatus for nondestructive testing --- using high frequency arc discharges  
[NASA-CASE-MFS-21233-1] c 38 N74-15395
- Random pulse generator  
[NASA-CASE-MS-14131-1] c 33 N75-19515
- Ranging system --- industrial robotics  
[NASA-CASE-NPO-15885-1] c 74 N83-12991
- Active lamp pulse driver circuit --- optical pumping of laser media  
[NASA-CASE-GSC-12568-1] c 33 N83-34189
- Synchronization tracking in pulse position modulation receiver  
[NASA-CASE-NPO-18256-1] c 32 N84-32620

## PULSE HEATING

- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-1] c 35 N82-25484

## PULSE MODULATION

- Synchronization tracking in pulse position modulation receiver  
[NASA-CASE-NPO-18256-1] c 32 N84-32620

## PULSE RATE

- Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137
- Peak holding circuit for extremely narrow pulses  
[NASA-CASE-MS-14129-1] c 33 N75-18479
- Pulse transducer with artifact signal attenuator --- heart rate sensors  
[NASA-CASE-FRC-11012-1] c 52 N80-23969

## PULSED LASERS

- Repetitively pulsed, wavelength selective laser Patent  
[NASA-CASE-ERC-10178] c 16 N71-24832
- Dually mode locked Nd:YAG laser  
[NASA-CASE-GSC-11746-1] c 36 N75-19654
- Isotope separation using metallic vapor lasers  
[NASA-CASE-NPO-13550-1] c 36 N77-26477
- Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect  
[NASA-CASE-NPO-14657-1] c 74 N81-17887
- Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418
- Coherently pulsed laser source  
[NASA-CASE-NPO-15111-1] c 36 N82-29589
- Active lamp pulse driver circuit --- optical pumping of laser media  
[NASA-CASE-GSC-12566-1] c 33 N83-34189

## PULSED RADIATION

- Cyclically operable optical shutter  
[NASA-CASE-NPO-10758] c 14 N73-14427

## PULSES

- High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119
- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-2] c 35 N84-22935

## PUMP SEALS

- Fluid impervious barrier including liquid metal alloy and method of making same Patent  
[NASA-CASE-XNP-08881] c 17 N71-28747
- Spiral groove seal --- for hydraulic rotating shaft  
[NASA-CASE-LEW-10326-3] c 37 N74-10474

## PUMPS

- Piezoelectric pump Patent  
[NASA-CASE-XNP-05429] c 26 N71-21824
- Vapor liquid separator Patent  
[NASA-CASE-XMF-04042] c 15 N71-23023
- Automatic pump Patent  
[NASA-CASE-XNP-04731] c 15 N71-24042
- Hydraulic transformer Patent  
[NASA-CASE-MFS-20830] c 15 N71-30028
- Fifty pump-metering system  
[NASA-CASE-GSC-10218-1] c 15 N72-21465
- Magnetocaloric pump --- for cryogenic fluids  
[NASA-CASE-LEW-11672-1] c 37 N74-27904
- Continuous coal processing method  
[NASA-CASE-NPO-13758-2] c 31 N81-15154
- Gas-to-hydraulic power converter  
[NASA-CASE-MS-18794-1] c 44 N83-14693
- Fluid driven sump pump  
[NASA-CASE-ARC-11414-1] c 37 N83-20152
- Variable speed drive  
[NASA-CASE-GSC-12643-1] c 37 N83-26078

## PUNCHED CARDS

- File card marker Patent  
[NASA-CASE-XLA-02705] c 08 N71-15908
- Device for handling printed circuit cards Patent  
[NASA-CASE-MFS-20453] c 15 N71-29133

## PUNCHES

- Convoluting device for forming convolutions and the like Patent  
[NASA-CASE-XNP-05297] c 15 N71-23811

## PURGING

- Techniques for insulating cryogenic fuel containers Patent  
[NASA-CASE-XLA-01967] c 31 N70-42015
- High pressure gas filter system Patent  
[NASA-CASE-MFS-12806] c 14 N71-17588
- Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
[NASA-CASE-XMS-01905] c 12 N71-21089
- Purge device for thrust engines Patent  
[NASA-CASE-XMS-04826] c 28 N71-28849
- Purging means and method for Xenon arc lamps  
[NASA-CASE-NPO-11978] c 31 N78-17238

## PURIFICATION

- High pressure helium purifier Patent  
[NASA-CASE-XMF-06888] c 15 N71-24044
- Method and apparatus for distillation of liquids Patent  
[NASA-CASE-XNP-08124] c 15 N71-27184
- Targets for producing high purity I-123  
[NASA-CASE-LEW-10518-3] c 25 N78-27226
- Process for purification of waste water produced by a Kraft process pulp and paper mill  
[NASA-CASE-NPO-13847-2] c 85 N79-17747
- Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229
- Membrane consisting of polyquaternary amine ion exchange polymer network interpenetrating the chains of thermoplastic matrix polymer  
[NASA-CASE-NPO-14001-1] c 27 N81-14076
- Electromigration process for the purification of molten silicon during crystal growth  
[NASA-CASE-NPO-14831-1] c 76 N82-30105

## PURITY

- Process for preparation of dianilinosilanes Patent  
[NASA-CASE-XMF-06409] c 06 N71-23230
- Method for growing low defect, high purity crystalline layers --- photovoltaic cells  
[NASA-CASE-NPO-15813-1] c 76 N83-30269

## PUSH-PULL AMPLIFIERS

- Frequency modulated oscillator  
[NASA-CASE-MFS-23181-1] c 33 N77-17351
- Low current linearization of magnetic amplifier for dc transducer  
[NASA-CASE-NPO-14617-1] c 33 N81-24338
- Push-pull converter with energy saving circuit for protecting switching transistors from peak power stress  
[NASA-CASE-NPO-14318-1] c 33 N81-33404

## PYLONS

- Decoupler pylon: wing/store flutter suppressor  
[NASA-CASE-LAR-12468-1] c 08 N82-32373

## PYRIDINES

- Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof  
[NASA-CASE-NPO-10557] c 27 N78-17214
- Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341

## PYROELECTRICITY

- Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 35 N82-31659
- Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-2] c 33 N83-24763

## PYROGEN

- Molded composite pyrogen igniter for rocket motors --- solid propellant ignition  
[NASA-CASE-LAR-12018-1] c 20 N78-24275

## PYROLYSIS

- Molten salt pyrolysis of latex --- synthetic hydrocarbon fuel production using the Guayule shrub  
[NASA-CASE-NPO-14315-1] c 27 N81-17261
- Thermal reactor --- liquid silicon production from silane gas  
[NASA-CASE-NPO-14369-1] c 44 N83-10501
- Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912

## PYROLYTIC GRAPHITE

- Multislit film cooled pyrolytic graphite rocket nozzle Patent  
[NASA-CASE-XNP-04389] c 28 N71-20942
- Ion sputter textured graphite --- anode collector plates in electron tube devices  
[NASA-CASE-LEW-12919-1] c 24 N83-10117
- A multistage spent particle collector and a method for making same  
[NASA-CASE-LEW-13914-1] c 35 N84-12447
- Ion sputter textured graphite electrode plates  
[NASA-CASE-LEW-12919-2] c 70 N84-28565

## PYROLYTIC MATERIALS

- Ablation structures Patent  
[NASA-CASE-XMS-01816] c 33 N71-15623

## PYROMETERS

- Ablation sensor  
[NASA-CASE-XLA-01781] c 14 N69-39975

## PYROTECHNICS

- Disconnect unit  
[NASA-CASE-NPO-11330] c 33 N73-26958

## PYRRONES (TRADEMARK)

- Method for forming pyrrone molding powders and products of said method  
[NASA-CASE-LAR-10423-1] c 23 N82-29358

## Q

## Q SWITCHED LASERS

- Optically detonated explosive device  
[NASA-CASE-NPO-11743-1] c 28 N74-27425
- Spatial filter for Q-switched lasers  
[NASA-CASE-LEW-12184-1] c 36 N77-32478
- Laser Resonator  
[NASA-CASE-GSC-12565-1] c 36 N84-14509

## Q VALUES

- Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11258

## QUADRATIC PROGRAMMING

- Quadrature demodulation  
[NASA-CASE-GSC-12137-1] c 33 N76-32338

## QUADRATURES

- Automatic quadrature control and measuring system --- using optical coupling circuitry  
[NASA-CASE-MFS-21660-1] c 35 N74-21017

## QUALITATIVE ANALYSIS

- Ultraviolet atomic emission detector  
[NASA-CASE-HON-10756-1] c 14 N72-25428
- Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples  
[NASA-CASE-MS-14428-1] c 23 N77-17161
- Fluid sample collection and distribution system --- qualitative analysis of aqueous samples from several points  
[NASA-CASE-MS-16841-1] c 34 N79-24285

## QUALITY CONTROL

- Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903
- Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274

## QUANTITATIVE ANALYSIS

- Fluid phase analyzer Patent  
[NASA-CASE-NPO-10691] c 14 N71-26199
- Apparatus for detecting the amount of material in a resonant cavity container Patent  
[NASA-CASE-XNP-02500] c 18 N71-27397
- Ultraviolet atomic emission detector  
[NASA-CASE-HON-10756-1] c 14 N72-25428
- Nondispersive gas analyzing method and apparatus wherein radiation is serially passed through a reference and unknown gas  
[NASA-CASE-ARC-10308-1] c 06 N72-31141
- Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples  
[NASA-CASE-MS-14428-1] c 23 N77-17161
- Electrophotolysis oxidation system for measurement of organic concentration in water  
[NASA-CASE-MS-16497-1] c 25 N82-12166
- Method for detecting coliform organisms  
[NASA-CASE-ARC-11322-1] c 51 N83-28849

## QUANTUM THEORY

III-V photocathode with nitrogen doping for increased quantum efficiency  
[NASA-CASE-NPO-12134-1] c 33 N76-31409

## QUARTZ

Ultraviolet filter  
[NASA-CASE-XNP-02340] c 23 N69-24332  
Method for attaching a fused-quartz mirror to a conductive metal substrate  
[NASA-CASE-MFS-23405-1] c 26 N77-29260  
Quartz ball valve  
[NASA-CASE-NPO-14473-1] c 37 N80-23654  
Ampoule sealing apparatus and process --- for housing a semiconductor growth charge under vacuum  
[NASA-CASE-LAR-12847-1] c 33 N83-16633

## QUARTZ LAMPS

High intensity heat and light unit Patent  
[NASA-CASE-XLA-00141] c 09 N70-33312  
Light shield and cooling apparatus --- high intensity ultraviolet lamp  
[NASA-CASE-LAR-10089-1] c 34 N74-23066

## QUINOXALINES

Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups --- for thermoplastic resins  
[NASA-CASE-LAR-12838-1] c 27 N83-34040

## R

## RACKS (FRAMES)

Test stand system for vacuum chambers  
[NASA-CASE-MFS-21362] c 11 N73-20267  
Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft  
[NASA-CASE-MFS-21680-1] c 18 N74-27397  
Automated syringe sampler --- remote sampling of air and water  
[NASA-CASE-LAR-12308-1] c 35 N81-29407  
Laboratory glassware rack for seismic safety  
[NASA-CASE-ARC-11422-1] c 35 N84-20808

## RADAR ANTENNAS

Radar antenna system for acquisition and tracking Patent  
[NASA-CASE-XMS-09610] c 07 N71-24625  
Variable beamwidth antenna --- with multiple beam, variable feed system  
[NASA-CASE-GSC-11862-1] c 32 N76-18295  
Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector  
[NASA-CASE-NPO-13568-1] c 32 N76-21365  
Baseband signal combiner for large aperture antenna array  
[NASA-CASE-NPO-14641-1] c 32 N81-29308

## RADAR ATTENUATION

FM/CW radar system  
[NASA-CASE-MFS-22234-1] c 32 N79-10264

## RADAR DATA

Charge-coupled device data processor for an airborne imaging radar system  
[NASA-CASE-NPO-13587-1] c 32 N77-32342

## RADAR ECHOES

Charge-coupled device data processor for an airborne imaging radar system  
[NASA-CASE-NPO-13587-1] c 32 N77-32342

## RADAR EQUIPMENT

Method and apparatus for mapping planets  
[NASA-CASE-NPO-11001] c 07 N72-21118  
FM/CW radar system  
[NASA-CASE-MFS-22234-1] c 32 N79-10264

## RADAR IMAGERY

Method of locating persons in distress --- by using radar imagery from radar reflectors  
[NASA-CASE-LAR-11390-1] c 32 N77-21267  
Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-1] c 32 N79-19195  
Radar target for remotely sensing hydrological phenomena  
[NASA-CASE-LAR-12344-1] c 43 N80-18498  
Real-time multiple-look synthetic aperture radar processor for spacecraft applications  
[NASA-CASE-NPO-14054-1] c 32 N82-12297  
Clutter free synthetic aperture radar correlator  
[NASA-CASE-NPO-14035-1] c 32 N83-19968  
Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-2] c 32 N83-31918

## RADAR MEASUREMENT

Thickness measurement system  
[NASA-CASE-MFS-23721-1] c 31 N79-28370

## RADAR RANGE

Radar ranging receiver Patent  
[NASA-CASE-XNP-00748] c 07 N70-36911

## RADAR RECEIVERS

Polarization diversity monopulse tracking receiver Patent  
[NASA-CASE-XGS-03501] c 09 N71-20864  
Wideband passive synthetic-aperture multichannel receiver  
[NASA-CASE-NPO-15651-1] c 32 N82-26523

## RADAR RECEPTION

Radar ranging receiver Patent  
[NASA-CASE-XNP-00748] c 07 N70-36911

## RADAR REFLECTORS

Inflatable radar reflector unit Patent  
[NASA-CASE-XMS-00893] c 07 N70-40063  
Method of locating persons in distress --- by using radar imagery from radar reflectors  
[NASA-CASE-LAR-11390-1] c 32 N77-21267

## RADAR TARGETS

Radar target for remotely sensing hydrological phenomena  
[NASA-CASE-LAR-12344-1] c 43 N80-18498  
Synthetic aperture radar target simulator  
[NASA-CASE-NPO-15024-1] c 32 N84-27951

## RADAR TRACKING

Tracking antenna system Patent  
[NASA-CASE-GSC-10553-1] c 07 N71-19854  
Polarization diversity monopulse tracking receiver Patent  
[NASA-CASE-XGS-03501] c 09 N71-20864  
Monopulse tracking system Patent  
[NASA-CASE-XGS-01155] c 10 N71-21483  
Radar calibration sphere  
[NASA-CASE-XLA-11154] c 07 N72-21117  
Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376

## RADAR TRANSMITTERS

High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119

## RADIAL DISTRIBUTION

Method of preparing radially homogeneous mercury cadmium telluride crystals  
[NASA-CASE-MFS-25786-1] c 76 N83-18533  
Ultrasonic transducer with Gaussian radial pressure distribution  
[NASA-CASE-LAR-12967-1] c 35 N84-22932

## RADIAL FLOW

Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948  
Axially and radially controllable magnetic bearing  
[NASA-CASE-GSC-11551-1] c 37 N76-18459

## RADIANCE

Shock-layer radiation measurement  
[NASA-CASE-XAC-02970] c 14 N69-39896  
Optical multiple sample vacuum integrating sphere  
[NASA-CASE-GSC-12849-1] c 74 N84-15960

## RADIANT COOLING

Direct radiation cooling of the collector of linear beam tubes  
[NASA-CASE-XNP-09227] c 15 N69-24319  
Process for applying black coating to metals Patent  
[NASA-CASE-XLA-06199] c 15 N71-24875  
Method for attaching a fused-quartz mirror to a conductive metal substrate  
[NASA-CASE-MFS-23405-1] c 26 N77-29260  
Radiative cooler --- spacecraft radiators  
[NASA-CASE-NPO-15465-1] c 34 N84-22903

## RADIANT FLUX DENSITY

High intensity radiant energy pulse source having means for opening shutter when light flux has reached a desired level  
[NASA-CASE-ARC-10178-1] c 09 N72-17152  
Microwave power transmission beam safety system  
[NASA-CASE-NPO-14224-1] c 33 N80-18287

## RADIANT HEATING

High intensity heat and light unit Patent  
[NASA-CASE-XLA-00141] c 09 N70-33312  
High temperature heat source Patent  
[NASA-CASE-XLE-00490] c 33 N70-34545  
Radiant heater having formed filaments Patent  
[NASA-CASE-XLE-00387] c 33 N70-34812  
Ceramic insulation for radiant heating environments and method of preparing the same Patent  
[NASA-CASE-MFS-14253] c 33 N71-24858  
Portable linear-focused solar thermal energy collecting system  
[NASA-CASE-NPO-13734-1] c 44 N78-10554  
High thermal power density heat transfer --- thermionic converters  
[NASA-CASE-LEW-12950-1] c 34 N82-11399

## RADIATION

Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409  
Irradiance measuring device  
[NASA-CASE-NPO-11493] c 14 N73-12447  
Analog to digital converter for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-3] c 60 N77-32731

Memory device for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-2] c 60 N78-10709

## RADIATION ABSORPTION

NDIR gas analyzer based on absorption modulation ratios for known and unknown samples  
[NASA-CASE-ARC-10802-1] c 35 N75-30502  
Method for making an aluminum or copper substrate panel for selective absorption of solar energy  
[NASA-CASE-MFS-23518-1] c 44 N79-11469  
Broadband optical radiation detector  
[US-PATENT-4,262,198] c 74 N83-19597

## RADIATION COUNTERS

Particle detection apparatus Patent  
[NASA-CASE-XLA-00135] c 14 N70-33322  
Method and apparatus for determining satellite orientation utilizing spatial energy sources Patent  
[NASA-CASE-XGS-00466] c 21 N70-34297  
Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent  
[NASA-CASE-XLE-00243] c 14 N70-38602  
Baseline stabilization system for ionization detector Patent  
[NASA-CASE-XNP-03128] c 10 N70-41991  
Method of forming thin window drifted silicon charged particle detector Patent  
[NASA-CASE-XLE-00808] c 24 N71-10560  
Dosimeter for high levels of absorbed radiation Patent  
[NASA-CASE-XLA-03645] c 14 N71-20430  
Coincidence apparatus for detecting particles  
[NASA-CASE-XLA-07813] c 14 N72-17328  
Radiation and particle detector and amplifier  
[NASA-CASE-NPO-12128-1] c 14 N73-32317  
Coaxial anode wire for gas radiation counters  
[NASA-CASE-GSC-11492-1] c 35 N74-26949  
Particle parameter analyzing system --- x-y plotter circuits and display  
[NASA-CASE-XLE-06094] c 33 N78-17293  
Method and means for helium/hydrogen ratio measurement by alpha scattering  
[NASA-CASE-NPO-14079-1] c 25 N80-20334  
Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423  
Modulated voltage metastable ionization detector  
[NASA-CASE-ARC-11503-1] c 51 N84-23093  
Ion mass spectrometer  
[NASA-CASE-NPO-15423-1] c 35 N84-28016  
Radionuclide counting technique for measuring wind velocity and direction  
[NASA-CASE-LAR-12971-1] c 47 N84-28292

## RADIATION DAMAGE

Semiconductor material and method of making same Patent  
[NASA-CASE-XLE-02798] c 26 N71-23654  
Recovery of radiation damaged solar cells through thermal annealing  
[NASA-CASE-XGS-04047-2] c 03 N72-11062  
Photomultiplier circuit including means for rapidly reducing the sensitivity thereof --- and protection from radiation damage  
[NASA-CASE-ARC-10593-1] c 33 N74-27682

## RADIATION DETECTORS

Penetrating radiation system for detecting the amount of liquid in a tank Patent  
[NASA-CASE-MS-12280] c 27 N71-16348  
Light detection instrument Patent  
[NASA-CASE-XGS-05534] c 23 N71-16355  
Attitude sensor for space vehicles Patent  
[NASA-CASE-XLA-00793] c 21 N71-22880  
Extended area semiconductor radiation detectors and a novel readout arrangement Patent  
[NASA-CASE-XGS-03230] c 14 N71-23401  
Nondispersive gas analyzing method and apparatus wherein radiation is serially passed through a reference and unknown gas  
[NASA-CASE-ARC-10308-1] c 06 N72-31141  
Radiant source tracker independent of nonconstant irradiance  
[NASA-CASE-NPO-11686] c 14 N73-25462  
Radiation and particle detector and amplifier  
[NASA-CASE-NPO-12128-1] c 14 N73-32317  
Mossbauer spectrometer radiation detector  
[NASA-CASE-LAR-11155-1] c 35 N74-15091  
High field CdS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088  
Flame detector operable in presence of proton radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410  
Wide angle sun sensor --- consisting of cylinder, insulation and pair of detectors  
[NASA-CASE-NPO-13327-1] c 35 N75-23910

- Detector absorptivity measuring method and apparatus  
[NASA-CASE-LAR-10907-1] c 35 N76-29551
- Wedge immersed thermistor bolometers  
[NASA-CASE-XGS-01245-1] c 35 N79-33449
- X-ray position detector  
[NASA-CASE-NPO-12087-1] c 74 N81-18898
- Broadband optical radiation detector  
[US-PATENT-4,262,198] c 74 N83-19597
- Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311
- Method and apparatus for precision control of radiometer  
[NASA-CASE-NPO-15398-1] c 35 N84-22931
- RADIATION DISTRIBUTION**  
Space simulator Patent  
[NASA-CASE-XNP-00459] c 11 N70-38675
- RADIATION DOSAGE**  
Dosimeter for high levels of absorbed radiation Patent  
[NASA-CASE-XLA-03645] c 14 N71-20430
- Method for analyzing radiation sensitivity of integrated circuits  
[NASA-CASE-NPO-14350-1] c 33 N80-14332
- Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311
- RADIATION EFFECTS**  
Method of temperature compensating semiconductor strain gages Patent  
[NASA-CASE-XLA-04555-1] c 14 N71-25892
- RADIATION HARDENING**  
Radiation hardening of MOS devices by boron — for stabilizing gate threshold potential of field effect device  
[NASA-CASE-GSC-11425-1] c 76 N74-20329
- RADIATION HAZARDS**  
Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311
- RADIATION MEASUREMENT**  
Irradiance measuring device  
[NASA-CASE-NPO-11493] c 14 N73-12447
- RADIATION MEASURING INSTRUMENTS**  
Scanning aspect sensor employing an apertured disc and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432
- Infrared scanner Patent  
[NASA-CASE-XLA-00120] c 21 N70-33181
- Instrument for the quantitative measurement of radiation at multiple wave lengths Patent  
[NASA-CASE-XLE-00011] c 14 N70-41946
- Method for improving the signal-to-noise ratio of the Wheatstone bridge type bolometer Patent  
[NASA-CASE-XLA-02810] c 14 N71-25901
- Irradiance measuring device  
[NASA-CASE-NPO-11493] c 14 N73-12447
- Phototransistor  
[NASA-CASE-MFS-20407] c 09 N73-19235
- Method and apparatus for measuring electromagnetic radiation  
[NASA-CASE-LEW-11159-1] c 14 N73-28488
- Compton scatter attenuation gamma ray spectrometer  
[NASA-CASE-MFS-21441-1] c 14 N73-30392
- Coaxial anode wire for gas radiation counters  
[NASA-CASE-GSC-11492-1] c 35 N74-26949
- Cloud cover sensor  
[NASA-CASE-NPO-14936-1] c 47 N83-32232
- Liquid crystal light valve structures  
[NASA-CASE-MSC-20036-1] c 76 N84-22457
- RADIATION MEDICINE**  
Method of producing I-123 — by bombardment of cesium causing spallation  
[NASA-CASE-LEW-11390-2] c 25 N76-27383
- RADIATION PROTECTION**  
Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent  
[NASA-CASE-XNP-01310] c 33 N71-28852
- Laser coolant and ultraviolet filter  
[NASA-CASE-MFS-20180] c 16 N72-12440
- Photomultiplier circuit including means for rapidly reducing the sensitivity thereof — and protection from radiation damage  
[NASA-CASE-ARC-10593-1] c 33 N74-27682
- RADIATION SHIELDING**  
Ion thruster cathode Patent Application  
[NASA-CASE-LEW-10814-1] c 28 N70-35422
- Ionization vacuum gauge with all but the end of the ion collector shielded Patent  
[NASA-CASE-XLA-07424] c 14 N71-18482
- Sealed cabinetry Patent  
[NASA-CASE-MSC-12168-1] c 09 N71-18600
- Propellant feed isolator Patent  
[NASA-CASE-LEW-10210-1] c 28 N71-26781
- Zero gravity shadow shield aligner  
[NASA-CASE-KSC-10622-1] c 31 N72-21893
- Light shield and cooling apparatus — high intensity ultraviolet lamp  
[NASA-CASE-LAR-10089-1] c 34 N74-23066
- RADIATION SOURCES**  
Sight switch using an infrared source and sensor Patent  
[NASA-CASE-XMF-03934] c 09 N71-22985
- Apparatus for obtaining isotropic irradiation of a specimen  
[NASA-CASE-MFS-20095] c 24 N72-11595
- Radiant source tracker independent of nonconstant irradiance  
[NASA-CASE-NPO-11686] c 14 N73-25462
- High powered arc electrodes — producing solar simulator radiation  
[NASA-CASE-LEW-11162-1] c 33 N74-12913
- Electric arc light source having undercut recessed anode  
[NASA-CASE-ARC-10266-1] c 33 N75-29318
- RADIATION SPECTRA**  
Maksutov spectrograph Patent  
[NASA-CASE-XLA-10402] c 14 N71-29041
- RADIATION THERAPY**  
Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875
- RADIATION TOLERANCE**  
Alkali-metal silicate protective coating  
[NASA-CASE-XGS-04119] c 18 N69-39979
- Method of making a silicon semiconductor device Patent  
[NASA-CASE-XLE-02792] c 26 N71-10607
- Radiation resistant silicon semiconductor devices Patent  
[NASA-CASE-XGS-07801] c 09 N71-12513
- Radiation hardening of MOS devices by boron — for stabilizing gate threshold potential  
[NASA-CASE-GSC-11425-2] c 76 N75-25730
- Method for analyzing radiation sensitivity of integrated circuits  
[NASA-CASE-NPO-14350-1] c 33 N80-14332
- RADIATIVE HEAT TRANSFER**  
Heat flux sensor assembly  
[NASA-CASE-XMS-05909-1] c 14 N69-27459
- Capillary radiator Patent  
[NASA-CASE-XLE-03307] c 33 N71-14035
- Transient heat transfer gauge Patent  
[NASA-CASE-XNP-09802] c 33 N71-15841
- Construction and method of arranging a plurality of ion engines to form a cluster Patent  
[NASA-CASE-XNP-02923] c 28 N71-23081
- Apparatus and method for heating a material in a transparent ampoule — crystal growth  
[NASA-CASE-MFS-25436-1] c 27 N83-36220
- RADIATORS**  
Self-adjusting multisegment, deployable, natural circulation radiator Patent  
[NASA-CASE-XHQ-03673] c 33 N71-29046
- RADIO ANTENNAS**  
Parasitic probe antenna Patent  
[NASA-CASE-XKS-09348] c 09 N71-13521
- VHF/UHF parasitic probe antenna Patent  
[NASA-CASE-XKS-09340] c 07 N71-24614
- Unfurlable structure including coiled strips thrust launched upon tension release Patent  
[NASA-CASE-HQN-00937] c 07 N71-28979
- Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector  
[NASA-CASE-NPO-13568-1] c 32 N76-21365
- RADIO ASTRONOMY**  
Millimeter wave radiometer for radio astronomy Patent  
[NASA-CASE-XNP-09832] c 30 N71-23723
- RADIO BEACONS**  
RF beam center location method and apparatus for power transmission system  
[NASA-CASE-NPO-13821-1] c 44 N78-28594
- RADIO COMMUNICATION**  
System for synchronizing synthesizers of communication systems  
[NASA-CASE-GSC-12148-1] c 32 N79-20296
- RADIO CONTROL**  
RF controlled solid state switch  
[NASA-CASE-ARC-10136-1] c 09 N72-22202
- RADIO EQUIPMENT**  
System for synchronizing synthesizers of communication systems  
[NASA-CASE-GSC-12148-1] c 32 N79-20296
- RADIO FREQUENCIES**  
Helical coaxial resonator RF filter  
[NASA-CASE-XGS-02816] c 07 N69-24323
- Automatic gain control system  
[NASA-CASE-XMS-05307] c 09 N69-24330
- Radio frequency shielded enclosure Patent  
[NASA-CASE-XMF-09422] c 07 N71-19436
- Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent  
[NASA-CASE-XMF-08665] c 10 N71-19467
- Sidereal frequency generator Patent  
[NASA-CASE-XGS-02610] c 14 N71-23174
- Radio frequency coaxial high pass filter Patent  
[NASA-CASE-XGS-01418] c 09 N71-23573
- Variable frequency nuclear magnetic resonance spectrometer Patent  
[NASA-CASE-XNP-09830] c 14 N71-26266
- Signal path series step biased multidevice high efficiency amplifier Patent  
[NASA-CASE-GSC-10668-1] c 07 N71-28430
- Method and apparatus for sputtering utilizing an apertured electrode and a pulsed substrate bias  
[NASA-CASE-LEW-10920-1] c 17 N73-24569
- RF-source resistance meters  
[NASA-CASE-NPO-11291-1] c 14 N73-30388
- Multichannel logarithmic RF level detector  
[NASA-CASE-LAR-11021-1] c 32 N76-14321
- Ion and electron detector for use in an ICR spectrometer  
[NASA-CASE-NPO-13479-1] c 35 N77-10492
- Radio frequency arraying method for receivers  
[NASA-CASE-NPO-14328-1] c 32 N80-18253
- Precise RF timing signal distribution to remote stations — fiber optics  
[NASA-CASE-NPO-14749-1] c 32 N81-14186
- Hyperthermia heating apparatus — cancer therapy  
[NASA-CASE-NPO-14549-2] c 52 N82-33996
- High stability buffered phase comparator  
[NASA-CASE-GSC-12645-1] c 33 N84-16454
- RADIO FREQUENCY DISCHARGE**  
Electric discharge for treatment of trace contaminants  
[NASA-CASE-ARC-10975-1] c 33 N79-15245
- RADIO FREQUENCY HEATING**  
Gyrotron transmitting tube  
[NASA-CASE-LEW-13429-1] c 33 N83-31952
- RADIO FREQUENCY INTERFERENCE**  
Parametric microwave noise generator Patent  
[NASA-CASE-XER-11019] c 09 N71-23598
- System for interference signal nulling by polarization adjustment  
[NASA-CASE-NPO-13140-1] c 32 N75-24982
- Systems and methods for determining radio frequency interference  
[NASA-CASE-GSC-12150-1] c 32 N79-11265
- Apparatus and method for determining the position of a radiant energy source  
[NASA-CASE-GSC-12147-1] c 32 N81-27341
- RADIO FREQUENCY SHIELDING**  
Shielded cathode mode bulk effect devices  
[NASA-CASE-ERC-10119] c 26 N72-21701
- Process for making RF shielded cable connector assemblies and the products formed thereby  
[NASA-CASE-GSC-11215-1] c 09 N73-28083
- RADIO INTERFEROMETERS**  
System for real-time crustal deformation monitoring  
[NASA-CASE-NPO-14124-1] c 46 N80-14603
- RADIO RECEIVERS**  
Multiple input radio receiver Patent  
[NASA-CASE-XLA-00901] c 07 N71-10775
- Optimum predetection diversity receiving system Patent  
[NASA-CASE-XGS-00740] c 07 N71-23098
- Radio frequency arraying method for receivers  
[NASA-CASE-NPO-14328-1] c 32 N80-18253
- Interferometric locating system  
[NASA-CASE-NPO-14173-1] c 04 N80-32359
- RADIO RELAY SYSTEMS**  
Satellite communication system Patent  
[NASA-CASE-XNP-02389] c 07 N71-28900
- Systems and methods for determining radio frequency interference  
[NASA-CASE-GSC-12150-1] c 32 N79-11265
- Beam forming network  
[NASA-CASE-NPO-15743-1] c 32 N83-19969
- RADIO SIGNALS**  
Passive communication satellite Patent  
[NASA-CASE-XLA-00210] c 30 N70-40309
- Millimeter wave radiometer for radio astronomy Patent  
[NASA-CASE-XNP-09832] c 30 N71-23723
- RADIO SOURCES (ASTRONOMY)**  
Conical scan tracking system employing a large antenna  
[NASA-CASE-NPO-14009-1] c 32 N79-13214
- RADIO STARS**  
Sidereal frequency generator Patent  
[NASA-CASE-XGS-02610] c 14 N71-23174
- RADIO TELEMETRY**  
Digital telemetry system Patent  
[NASA-CASE-XGS-01812] c 07 N71-23001
- RADIO TELESCOPES**  
Antenna grout replacement system  
[NASA-CASE-NPO-15202-1] c 27 N83-34043



## RADIO TRANSMITTERS

Vehicle locating system utilizing AM broadcasting station carriers  
[NASA-CASE-NPO-13217-1] c 32 N75-26194  
Aircraft-mounted crash-activated transmitter device  
[NASA-CASE-MFS-16609-3] c 03 N76-32140  
Low-frequency radio navigation system  
[NASA-CASE-NPO-15264-1] c 04 N84-27713

**RADIO WAVES**  
Shielded cathode mode bulk effect devices  
[NASA-CASE-ERC-10119] c 26 N72-21701

**RADIOACTIVE ISOTOPES**  
Thermally cascaded thermoelectric generator  
[NASA-CASE-NPO-10753] c 03 N72-26031  
Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft  
[NASA-CASE-LEW-11227-1] c 73 N75-30876  
Radionuclide counting technique for measuring wind velocity and direction  
[NASA-CASE-LAR-12971-1] c 47 N84-28292

**RADIOBIOLOGY**  
Production of high purity I-123  
[NASA-CASE-LEW-10518-1] c 24 N72-33681

**RADIOGRAPHY**  
Determination of spot weld quality Patent  
[NASA-CASE-XNP-02588] c 15 N71-18613  
Method and system for in vivo measurement of bone tissue using a two level energy source  
[NASA-CASE-MSC-14276-1] c 52 N77-14737  
X-ray determination of parts alignment  
[NASA-CASE-MSC-20418-1] c 37 N83-17882  
Medical clip  
[NASA-CASE-LAR-12650-1] c 52 N84-28388  
Process of making medical clip  
[NASA-CASE-LAR-12650-2] c 52 N84-28389

**RADIOLOGY**  
Hyperthermia heating apparatus --- cancer therapy  
[NASA-CASE-NPO-14549-2] c 52 N82-33996

**RADIOLYSIS**  
Process for making anhydrous metal halides  
[NASA-CASE-LEW-11860-1] c 37 N76-18458

**RADIOMETERS**  
Compensating radiometer  
[NASA-CASE-XLA-04556] c 14 N69-27484  
Conically shaped cavity radiometer with a dual purpose cone winding Patent  
[NASA-CASE-XNP-09701] c 14 N71-26475  
Black body cavity radiometer Patent  
[NASA-CASE-NPO-10810] c 14 N71-27323  
Thermoelectric radiometer utilizing polymer film  
[NASA-CASE-ARC-10138-1] c 14 N72-24477  
Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409  
Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437  
Method and apparatus for measuring solar activity and atmospheric radiation effects  
[NASA-CASE-ERC-10276] c 14 N73-26432  
Steady state thermal radiometers  
[NASA-CASE-MFS-21108-1] c 34 N74-27861  
Method and apparatus for precision control of radiometer  
[NASA-CASE-NPO-15398-1] c 35 N84-22931

**RADIOSONDES**  
Induction powered biological radiosonde  
[NASA-CASE-ARC-11120-1] c 52 N80-18691

**RAIN**  
Precipitation detector Patent  
[NASA-CASE-XLA-02619] c 10 N71-26334  
Environmental fog/rain visual display system for aircraft simulators  
[NASA-CASE-ARC-11158-1] c 09 N82-24212

**RAMJET ENGINES**  
Telescoping-spike supersonic inlet for aircraft engines Patent  
[NASA-CASE-XLE-00005] c 28 N70-39899  
Hypersonic airbreathing missile  
[NASA-CASE-LAR-12264-1] c 15 N78-32168

**RAMPS (STRUCTURES)**  
Automated multi-level vehicle parking system  
[NASA-CASE-NPO-13058-1] c 37 N77-22480

**RANDOM ACCESS MEMORY**  
Memory-based frame synchronizer --- for digital communication systems  
[NASA-CASE-GSC-12430-1] c 60 N82-16747  
Memory-based parallel data output controller  
[NASA-CASE-GSC-12447-2] c 60 N84-28491

**RANDOM LOADS**  
Fatigue testing device Patent  
[NASA-CASE-XLA-02131] c 32 N70-42003

**RANDOM NOISE**  
Noise limiter Patent  
[NASA-CASE-NPO-10169] c 10 N71-24844  
Digital servo control of random sound test excitation --- in reverberant acoustic chamber  
[NASA-CASE-NPO-11623-1] c 71 N74-31148

Random pulse generator  
[NASA-CASE-MSC-14131-1] c 33 N75-19515  
Pseudo noise code and data transmission method and apparatus  
[NASA-CASE-GSC-12017-1] c 32 N77-30308

**RANGE (EXTREMES)**  
Logarithmic circuit with wide dynamic range  
[NASA-CASE-GSC-12145-1] c 33 N78-32339

**RANGE FINDERS**  
Closed loop ranging system Patent  
[NASA-CASE-XNP-01501] c 21 N70-41930  
Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267  
Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376

**RANGEFINDING**  
Dynamic Doppler simulator Patent  
[NASA-CASE-XMS-05454-1] c 07 N71-12391  
Ranging system Patent  
[NASA-CASE-NPO-10066] c 09 N71-18598  
Binary coded sequential acquisition ranging system  
[NASA-CASE-NPO-11194] c 08 N72-25209  
Code regenerative clean-up loop transponder for a mu-type ranging system  
[NASA-CASE-NPO-11707] c 07 N73-25161  
Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site  
[NASA-CASE-LAR-10626-1] c 19 N74-21015  
Optical distance measuring instrument  
[US-PATENT-APPL-SN-406820] c 74 N83-13982

**RARE EARTH COMPOUNDS**  
Didymium hydrate additive to nickel hydroxide electrodes Patent  
[NASA-CASE-XGS-03505] c 03 N71-10608  
High modulus rare earth and beryllium containing silicate glass compositions --- for glass reinforcing fibers  
[NASA-CASE-HQN-10595-1] c 27 N82-29455

**RARE GASES**  
Inert gas metallic vapor laser  
[NASA-CASE-NPO-13449-1] c 36 N75-32441  
Low noise lead screw positioner  
[NASA-CASE-NPO-15617-1] c 35 N82-33681

**RAREFIED GASES**  
Magnetically controlled plasma accelerator Patent  
[NASA-CASE-XLA-00327] c 25 N71-29184

**RATES (PER TIME)**  
Rate data encoder  
[NASA-CASE-LAR-10128-1] c 08 N73-20217  
Method of and apparatus for generating an interstitial point in a data stream having an even number of data points  
[NASA-CASE-MFS-25319-1] c 64 N83-12932

**RC CIRCUITS**  
Pulse counting circuit which simultaneously indicates the occurrence of the nth pulse Patent  
[NASA-CASE-XMF-00906] c 09 N70-41655  
RC rate generator for slow speed measurement Patent  
[NASA-CASE-XMF-02966] c 10 N71-24863  
Transient augmentation circuit for pulse amplifiers Patent  
[NASA-CASE-XNP-01068] c 10 N71-28739  
Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11256  
RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171  
Active RC networks  
[NASA-CASE-ARC-10020] c 10 N72-17172  
Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain  
[NASA-CASE-ARC-10192] c 09 N72-21245  
Temperature control system with a pulse width modulated bridge  
[NASA-CASE-NPO-11304] c 14 N73-26430  
Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-3] c 33 N75-19520

**REACTION CONTROL**  
Voice operated controller Patent  
[NASA-CASE-XLA-04063] c 31 N71-33160

**REACTION KINETICS**  
Synthesis of polyformals  
[NASA-CASE-ARC-11244-1] c 23 N82-16174  
Technique for measuring gas conversion factors  
[NASA-CASE-LAR-13220-1] c 35 N84-32786

**REACTION TIME**  
Pseudonoise code tracking loop  
[NASA-CASE-MSC-18035-1] c 32 N81-15179

**REACTION WHEELS**  
Reaction wheel scanner Patent  
[NASA-CASE-XGS-02629] c 14 N71-21082  
Gravity gradient attitude control system Patent  
[NASA-CASE-GSC-10555-1] c 21 N71-27324

**REACTIVITY**  
Gaseous control system for nuclear reactors  
[NASA-CASE-XLE-04599] c 22 N72-20597

## REACTOR CORES

Uninsulated in-core thermionic diode  
[NASA-CASE-NPO-10542] c 09 N72-27228

**REACTOR DESIGN**  
Non-equilibrium radiation nuclear reactor  
[NASA-CASE-HQN-10841-1] c 73 N78-19920  
Thermal reactor --- liquid silicon production from silane gas  
[NASA-CASE-NPO-14369-1] c 44 N83-10501

**REACTOR MATERIALS**  
Zirconium modified nickel-copper alloy  
[NASA-CASE-LEW-12245-1] c 26 N77-20201

**REACTOR PHYSICS**  
Non-equilibrium radiation nuclear reactor  
[NASA-CASE-HQN-10841-1] c 73 N78-19920

**READ-ONLY MEMORY DEVICES**  
Nanosequence digital logic controller  
[NASA-CASE-NPO-16116-1] c 60 N84-25306

**READOUT**  
Flow angle sensor and read out system Patent  
[NASA-CASE-XLE-04503] c 14 N71-24864  
Plural position switch status and operativeness checker Patent  
[NASA-CASE-XLA-08799] c 10 N71-27272  
Magneto-optic detection system with noise cancellation  
[NASA-CASE-NPO-11954-1] c 35 N78-29421

**REAL TIME OPERATION**  
Respiratory analysis system and method  
[NASA-CASE-MSC-13436-1] c 05 N73-32015  
Real time moving scene holographic camera system  
[NASA-CASE-MFS-21087-1] c 35 N74-17153  
Real time, large volume, moving scene holographic camera system  
[NASA-CASE-MFS-22537-1] c 35 N75-27328  
Carbon monoxide monitor --- using real time operation  
[NASA-CASE-MFS-22060-1] c 35 N75-29380  
Real time analysis of voiced sounds  
[NASA-CASE-NPO-13465-1] c 32 N76-31372  
Real time reflectometer --- measurement of specular reflectance  
[NASA-CASE-MFS-23118-1] c 35 N77-31465  
Contour detector and data acquisition system for the left ventricular outline  
[NASA-CASE-ARC-10985-1] c 52 N79-10724  
Azimuth correlator for real-time synthetic aperture radar image processing  
[NASA-CASE-NPO-14019-1] c 32 N79-14268  
System for real-time crustal deformation monitoring  
[NASA-CASE-NPO-14124-1] c 46 N80-14603  
X-ray position detector  
[NASA-CASE-NPO-12087-1] c 74 N81-19898  
Real-time multiple-look synthetic aperture radar processor for spacecraft applications  
[NASA-CASE-NPO-14054-1] c 32 N82-12297  
Optical stereo video signal processor --- line of sight tracking  
[NASA-CASE-MFS-25752-1] c 74 N83-21950  
Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter  
[NASA-CASE-NPO-15519-1] c 32 N84-34651

**REBREATHING**  
Portable breathing system --- a breathing apparatus using a rebreathing system of heat exchangers for carbon dioxide removal  
[NASA-CASE-MSC-16182-1] c 54 N80-10799

**RECEIVERS**  
System for improving signal-to-noise ratio of a communication signal Patent Application  
[NASA-CASE-MSC-12259-1] c 07 N70-12616  
Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier  
[NASA-CASE-NPO-11593-1] c 07 N73-28012  
Automatic carrier acquisition system  
[NASA-CASE-NPO-11628-1] c 07 N73-30113  
Coherent receiver employing nonlinear coherence detection for carrier tracking  
[NASA-CASE-NPO-11921-1] c 32 N74-30523  
Low distortion receiver for bi-level baseband PCM waveforms  
[NASA-CASE-MSC-14557-1] c 32 N76-16249  
Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346  
Self-calibrating threshold detector  
[NASA-CASE-MSC-16370-1] c 35 N81-19427  
High dynamic global positioning system receiver  
[NASA-CASE-NPO-16171-1-CU] c 04 N84-12151  
Method and apparatus for receiving and tracking phase modulated signals  
[NASA-CASE-MSC-16170-2] c 32 N84-27952

**RECONSTRUCTION**  
Method and means for recording and reconstructing holograms without use of a reference beam Patent  
[NASA-CASE-ERC-10020] c 16 N71-26154



## RECORDING HEADS

Electromagnetic transducer recording head having a laminated core section and tapered gap  
[NASA-CASE-NPO-10711-1] c 35 N77-21392

## RECORDING INSTRUMENTS

Automatic force measuring system Patent  
[NASA-CASE-XLA-02605] c 14 N71-10773  
Blood pressure measuring system for separating and separately recording dc signal and an ac signal Patent  
[NASA-CASE-XMS-06061] c 05 N71-23317  
Helical recorder arrangement for multiple channel recording on both sides of the tape  
[NASA-CASE-GSC-10614-1] c 09 N72-11224  
Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control  
[NASA-CASE-NPO-11317-2] c 36 N74-13205  
Holography utilizing surface plasmon resonances  
[NASA-CASE-MFS-22040-1] c 35 N74-26946  
Measuring probe position recorder  
[NASA-CASE-LAR-10806-1] c 35 N74-32877

## RECOVERABILITY

Ejectable underwater sound source recovery assembly  
[NASA-CASE-LAR-10595-1] c 35 N74-16135

## RECOVERABLE LAUNCH VEHICLES

Recoverable rocket vehicle Patent  
[NASA-CASE-XMF-00389] c 31 N70-34176  
Orbiter/launch system  
[NASA-CASE-LAR-12250-1] c 14 N81-26161

## RECOVERABLE SPACECRAFT

Space capsule ejection assembly Patent  
[NASA-CASE-XMF-03169] c 31 N71-15675

## RECOVERY PARACHUTES

Vehicle parachute and equipment jettison system Patent  
[NASA-CASE-XLA-00195] c 02 N70-38009  
Vortex breach high pressure gas generator  
[NASA-CASE-LAR-10549-1] c 31 N73-13898

## RECTANGULAR PANELS

Stacked solar cell arrays  
[NASA-CASE-NPO-11771] c 03 N73-20040  
Composite sandwich lattice structure  
[NASA-CASE-LAR-11898-1] c 24 N78-10214

## RECTIFIERS

Thin window, drifted silicon, charged particle detector  
[NASA-CASE-XLE-10529] c 14 N69-23191  
Power control circuit  
[NASA-CASE-XNP-02713] c 10 N69-39888  
Precision rectifier with FET switching means Patent  
[NASA-CASE-ARC-10101-1] c 09 N71-33109  
SCR lamp driver  
[NASA-CASE-GSC-10221-1] c 09 N72-23171  
A dc to ac to dc converter having transistor synchronous rectifiers  
[NASA-CASE-GSC-11126-1] c 09 N72-25253  
Elimination of current spikes in buck power converters  
[NASA-CASE-NPO-14505-1] c 33 N81-19393

## RECTUM

Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875

## REDOX CELLS

Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-2] c 44 N81-29524  
Zirconium carbide as an electrocatalyst for the chromous-chromic redox couple  
[NASA-CASE-LEW-13248-1] c 44 N83-27344  
Chromium electrodes for REDOX cells  
[NASA-CASE-LEW-13653-1] c 44 N84-28205  
Negative electrode catalyst for the iron-chromium REDOX energy storage system  
[NASA-CASE-LEW-14028-1] c 44 N84-32909

## REDUCED GRAVITY

Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988  
Mass measuring system Patent  
[NASA-CASE-XMS-03371] c 05 N70-42000  
Reduced gravity simulator Patent  
[NASA-CASE-XLA-01787] c 11 N71-16028  
Restraint system for ergometer  
[NASA-CASE-MFS-21046-1] c 14 N73-27377  
Method of forming frozen spheres in a force-free drop tower  
[NASA-CASE-NPO-14845-1] c 27 N82-28442

## REDUCTION (CHEMISTRY)

Production of metal powders  
[NASA-CASE-XLE-06461] c 17 N72-22530  
Process for making anhydrous metal halides  
[NASA-CASE-LEW-11860-1] c 37 N76-18458  
Curable liquid hydrocarbon prepolymers containing hydroxyl groups and process for producing same  
[NASA-CASE-NPO-13137-1] c 27 N80-32514  
Hydrodesulfurization of chlorinated coal  
[NASA-CASE-NPO-15304-1] c 25 N83-31743

## REDUNDANCY

Reconfiguring redundancy management  
[NASA-CASE-MSC-18498-1] c 60 N82-29013

## REDUNDANT COMPONENTS

Redundant memory organization Patent  
[NASA-CASE-GSC-10564] c 10 N71-29135  
Redundant disc  
[NASA-CASE-LEW-12496-1] c 07 N78-33101  
Redundant motor drive system  
[NASA-CASE-MFS-23777-1] c 37 N80-32716  
Redundant operation of counter modules  
[NASA-CASE-NPO-14162-1] c 60 N81-15706

## REELS

Method and apparatus for measuring web material wound on a reel  
[NASA-CASE-GSC-11902-1] c 38 N77-17495  
Rotatable electric cable connecting system  
[NASA-CASE-GSC-12899-1] c 33 N84-29085

## REENTRY COMMUNICATION

Electrostatic plasma modulator for space vehicle re-entry communication Patent  
[NASA-CASE-XLA-01400] c 07 N70-41331  
Means for communicating through a layer of ionized gases Patent  
[NASA-CASE-XLA-01127] c 07 N70-41372  
Reentry communication by material addition Patent  
[NASA-CASE-XLA-01552] c 07 N71-11284

## REENTRY SHIELDING

Transpirationally cooled heat ablation system Patent  
[NASA-CASE-XMS-02677] c 31 N70-42075  
Method and apparatus for making a heat insulating and ablative structure Patent  
[NASA-CASE-XMS-02009] c 33 N71-20834  
Stand-off type ablative heat shield  
[NASA-CASE-MSC-12143-1] c 33 N72-17947  
Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft  
[NASA-CASE-LEW-11227-1] c 73 N75-30876  
Fibrous refractory composite insulation --- shielding reusable spacecraft  
[NASA-CASE-ARC-11169-1] c 24 N79-24062  
Adjustable high emittance gap filler --- reentry shielding for space shuttle vehicles  
[NASA-CASE-ARC-11310-1] c 27 N82-24339  
Method for repair of thin glass coatings --- on space shuttle orbiter tiles  
[NASA-CASE-KSC-11097-1] c 27 N82-33520

## REENTRY TRAJECTORIES

Hypersonic reentry vehicle Patent  
[NASA-CASE-XMS-04142] c 31 N70-41631

## REENTRY VEHICLES

Reentry vehicle leading edge Patent  
[NASA-CASE-XLA-00165] c 31 N70-33242  
Variable-geometry winged reentry vehicle Patent  
[NASA-CASE-XLA-00241] c 31 N70-37986  
Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699  
Ablation sensor Patent  
[NASA-CASE-XLA-01791] c 14 N71-22991  
Ring wing tension vehicle Patent  
[NASA-CASE-XLA-04901] c 31 N71-24315  
Ferry system  
[NASA-CASE-LAR-10574-1] c 11 N73-13257  
Vortex breach high pressure gas generator  
[NASA-CASE-LAR-10549-1] c 31 N73-13898  
Three-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-2] c 27 N78-23426

## REFERENCE SYSTEMS

Automatic frequency control loop including synchronous switching circuits  
[NASA-CASE-KSC-10393] c 09 N72-21247  
Magnetic heading reference  
[NASA-CASE-LAR-11387-2] c 04 N77-19056

## REFINING

Helium refining by superfluidity Patent  
[NASA-CASE-XNP-00733] c 06 N70-34946  
Fluidized bed coal liquefaction  
[NASA-CASE-NPO-15891-1] c 25 N83-36120

## REFLECTANCE

Optical characteristics measuring apparatus Patent  
[NASA-CASE-XNP-08840] c 23 N71-16365  
Gravimeter Patent  
[NASA-CASE-XMF-05844] c 14 N71-17587  
Optical mirror apparatus Patent  
[NASA-CASE-ERC-10001] c 23 N71-24868  
Diffusely reflecting paints including polytetrafluoroethylene and method of manufacture  
[NASA-CASE-GSC-12883-1] c 27 N84-24806  
Portable reflectance spectrometer  
[NASA-CASE-NPO-13556-1] c 35 N84-33766

## REFLECTED WAVES

Device and method for determining X ray reflection efficiency of optical surfaces  
[NASA-CASE-MFS-20243] c 23 N73-13662  
Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028

Reflected-wave maser --- low noise amplifier  
[NASA-CASE-NPO-13490-1] c 36 N76-31512  
X-ray imaging mirror system and method of producing the same  
[NASA-CASE-NPO-15828-1] c 74 N83-30222

## REFLECTING TELESCOPES

Anastigmatic three-mirror telescope  
[NASA-CASE-MFS-23675-1] c 89 N79-10969

## REFLECTION

Synthesis of zinc titanate pigment and coatings containing the same  
[NASA-CASE-MFS-13532] c 18 N72-17532  
Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector --- for determining density of gas  
[NASA-CASE-ARC-10631-1] c 74 N76-20958

## REFLECTOMETERS

Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent  
[NASA-CASE-XGS-05291] c 23 N71-16341  
Real time reflectometer --- measurement of specular reflectance  
[NASA-CASE-MFS-23118-1] c 35 N77-31465  
Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443  
Visible and infrared polarization ratio spectrophotometer  
[NASA-CASE-LAR-12265-1] c 35 N80-28687

## REFLECTORS

Reflector space satellite Patent  
[NASA-CASE-XLA-00138] c 31 N70-37981  
Self-erecting reflector Patent  
[NASA-CASE-XGS-09190] c 31 N71-16102  
Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent  
[NASA-CASE-XGS-08269] c 23 N71-26206  
Conical reflector antenna  
[NASA-CASE-NPO-10303] c 07 N72-22127  
Target acquisition antenna  
[NASA-CASE-GSC-10064-1] c 10 N72-22235  
Multi-purpose antenna employing dish reflector with plural coaxial horn feeds  
[NASA-CASE-NPO-11264] c 07 N72-25174  
Multiple reflection conical microwave antenna  
[NASA-CASE-NPO-11661] c 07 N73-14130  
Non-tracking solar energy collector system  
[NASA-CASE-NPO-13813-1] c 44 N78-31526  
Heat reflecting field stop  
[NASA-CASE-LAR-12443-1] c 74 N82-19030  
Solar cell having improved back surface reflector  
[NASA-CASE-LEW-13620-1] c 44 N83-13578  
Acoustic suspension system  
[NASA-CASE-NPO-15435-1] c 71 N83-36846  
Optical system with reflective baffles  
[NASA-CASE-ARC-11502-1] c 74 N84-26400

## REFRACTIVITY

The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols  
[NASA-CASE-GSC-12068-1] c 74 N78-13874  
Chromatically corrected virtual image visual display --- reducing eye strain in flight simulators  
[NASA-CASE-LAR-12251-1] c 74 N80-27185  
Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680  
X-ray imaging mirror system and method of producing the same  
[NASA-CASE-NPO-15828-1] c 74 N83-30222

## REFRACTORY COATINGS

Refractory coatings and method of producing the same  
[NASA-CASE-LEW-13169-1] c 26 N82-29415  
Refractory coatings  
[NASA-CASE-LEW-13169-2] c 26 N82-30371  
Method for repair of thin glass coatings --- on space shuttle orbiter tiles  
[NASA-CASE-KSC-11097-1] c 27 N82-33520

## REFRACTORY MATERIALS

High temperature testing apparatus Patent  
[NASA-CASE-XLE-00335] c 14 N70-35368  
Prestressed refractory structure Patent  
[NASA-CASE-XNP-02888] c 18 N71-21068  
Method of manufacturing semiconductor devices using refractory dielectrics  
[NASA-CASE-XER-08476-1] c 26 N72-17820  
High temperature furnace for melting materials in space  
[NASA-CASE-MFS-20710] c 11 N72-23215  
High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings  
[NASA-CASE-NPO-13690-1] c 27 N78-19302  
High temperature resistant cermet and ceramic compositions  
[NASA-CASE-NPO-13690-2] c 27 N79-14213

Fibrous refractory composite insulation --- shielding reusable spacecraft  
[NASA-CASE-ARC-11169-1] c 24 N79-24062  
Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby  
[NASA-CASE-LEW-12053-2] c 27 N79-28307  
Improved refractory coatings --- sputtered coatings on substrates that form stable nitrides  
[NASA-CASE-LEW-23169-2] c 26 N81-16209  
Adjustable high emittance gap filler --- reentry shielding for space shuttle vehicles  
[NASA-CASE-ARC-11310-1] c 27 N82-24339  
Attachment system for silica tiles --- thermal protection for space shuttle orbiter  
[NASA-CASE-MS-C-18741-1] c 27 N82-29456  
Densification of porous refractory substrates --- space shuttle orbiter tiles  
[NASA-CASE-MS-C-18737-1] c 24 N83-13171  
Method of repairing surface damage to porous refractory substrates --- space shuttle orbiter tiles  
[NASA-CASE-MS-C-18736-1] c 24 N83-13172  
High temperature silicon carbide impregnated insulating fabrics  
[NASA-CASE-MS-C-18832-1] c 27 N83-18908  
Apparatus for accurately preloading auger attachment means for frangible protective material  
[NASA-CASE-MS-C-18791-1] c 37 N83-36482

**REFRACTORY METALS**

Radiant heater having formed filaments Patent  
[NASA-CASE-XLE-00387] c 33 N70-34812  
Method of producing refractory bodies having controlled porosity Patent  
[NASA-CASE-LEW-10393-1] c 17 N71-15468  
Multilayer porous ionizer Patent  
[NASA-CASE-XNP-04338] c 17 N71-23046  
Brazing alloy Patent  
[NASA-CASE-XNP-03063] c 17 N71-23365  
Thermal radiation shielding Patent  
[NASA-CASE-XLE-03432] c 33 N71-24145  
Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent  
[NASA-CASE-XLE-03940] c 18 N71-26153  
Silicide coatings for refractory metals Patent  
[NASA-CASE-XLE-10910] c 18 N71-29040  
Refractory metal base alloy composites  
[NASA-CASE-XLE-03940-2] c 17 N72-28536  
Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components  
[NASA-CASE-LEW-11179-1] c 27 N76-16229  
Method of making an apertured casting --- using duplicate mold  
[NASA-CASE-LEW-11169-1] c 37 N76-23570  
Absorbable-susceptor joining of ceramic surfaces  
[NASA-CASE-NPO-15640-1] c 27 N84-22748

**REFRIGERATING**

Helium refrigerator and method for decontaminating the refrigerator  
[NASA-CASE-NPO-10634] c 23 N72-25619  
Magnetic heat pumping  
[NASA-CASE-LEW-12508-3] c 34 N83-29625

**REFRIGERATING MACHINERY**

Refrigeration apparatus  
[NASA-CASE-NPO-10309] c 15 N69-23190  
Refrigeration apparatus Patent  
[NASA-CASE-XNP-08877] c 15 N71-23025  
Dual solid cryogenics for spacecraft refrigeration Patent  
[NASA-CASE-GSC-10188-1] c 23 N71-24725  
Stirling cycle engine and refrigeration systems  
[NASA-CASE-NPO-13613-1] c 37 N78-29590  
Cycling Joule Thomson refrigerator  
[NASA-CASE-NPO-15251-1] c 31 N83-31897  
Vibration isolation and pressure compensation apparatus for sensitive instrumentation  
[NASA-CASE-LAR-12728-1] c 35 N83-32026

**REFRIGERATORS**

Intermittent type silica gel adsorption refrigerator Patent  
[NASA-CASE-XNP-00920] c 15 N71-15906  
Helium refrigerator  
[NASA-CASE-NPO-13435-1] c 31 N76-14284  
Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode  
[NASA-CASE-GSC-12168-1] c 31 N79-17029  
Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153  
Reciprocating magnetic refrigerator employing tandem porous matrices within a reciprocating displacer  
[NASA-CASE-NPO-16257-1] c 31 N84-24830

**REGENERATION (ENGINEERING)**

Switching circuit employing regeneratively connected complementary transistors Patent  
[NASA-CASE-XNP-02654] c 10 N70-42032

Regenerative braking system Patent  
[NASA-CASE-XMF-01096] c 10 N71-16030  
Free-piston regenerative hot gas hydraulic engine  
[NASA-CASE-LEW-12274-1] c 37 N80-31790

**REGENERATION (PHYSIOLOGY)**

Implantable electrical device  
[NASA-CASE-GSC-12560-1] c 52 N82-29863

**REGENERATIVE COOLING**

Formed metal ribbon wrap Patent  
[NASA-CASE-XLE-00164] c 15 N70-36411  
Method of making a regeneratively cooled combustion chamber Patent  
[NASA-CASE-XLE-00150] c 28 N70-41818  
Small rocket engine Patent  
[NASA-CASE-XLE-00685] c 28 N70-41992  
Combustion chamber Patent  
[NASA-CASE-XLE-04857] c 28 N71-23968  
Method of making apparatus for sensing temperature  
[NASA-CASE-XLE-05230-2] c 14 N73-13417

**REGENERATIVE FUEL CELLS**

Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
[NASA-CASE-XLE-04526] c 03 N71-11052

**REGENERATORS**

Code regenerative clean-up loop transponder for a mu-type ranging system  
[NASA-CASE-NPO-11707] c 07 N73-25161  
Magnetic heat pumping  
[NASA-CASE-LEW-12508-3] c 34 N83-29625

**REGISTERS (COMPUTERS)**

Variable digital processor including a register for shifting and rotating bits in either direction Patent  
[NASA-CASE-GSC-10186] c 08 N71-33110  
Priority interrupt system --- comprised of four registers  
[NASA-CASE-NPO-13067-1] c 60 N76-18800

**REINFORCED PLASTICS**

Tube fabricating process  
[NASA-CASE-LAR-10203-1] c 15 N72-16330  
Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125

**REINFORCEMENT (STRUCTURES)**

Reinforcing means for diaphragms Patent  
[NASA-CASE-XNP-01962] c 32 N70-41370

**REINFORCING FIBERS**

Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288  
Method of making fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198  
Method for producing fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-03925] c 18 N71-22894  
Thermal protection ablation spray system Patent  
[NASA-CASE-XLA-04251] c 18 N71-26100  
Method of preparing graphite reinforced aluminum composite  
[NASA-CASE-MFS-21077-1] c 24 N75-28135  
Crystalline polyimides --- reinforcing fibers for high temperature composites and adhesives as well as flame retardation  
[NASA-CASE-LAR-12099-1] c 27 N80-16158  
Composition and method for making polyimide resin-reinforced fabric  
[NASA-CASE-LEW-12933-1] c 27 N81-19296  
High modulus rare earth and beryllium containing silicate glass compositions --- for glass reinforcing fibers  
[NASA-CASE-HQN-10595-1] c 27 N82-29455  
Method of carbonizing polyacrylonitrile fibers  
[NASA-CASE-ARC-11261-1] c 24 N83-25789  
Fluoroether modified epoxy composites  
[NASA-CASE-LAR-11418-1] c 24 N84-11213

**RELAXATION OSCILLATORS**

Voltage to frequency converter Patent  
[NASA-CASE-GSC-10022-1] c 10 N71-25882

**RELAY SATELLITES**

Satellite communication system and method Patent  
[NASA-CASE-GSC-10118-1] c 07 N71-24621  
Satellite personal communications system  
[NASA-CASE-NPO-14480-1] c 32 N80-20448

**RELEASING**

Despin weight release Patent  
[NASA-CASE-XLA-00679] c 15 N70-38601  
Quick attach and release fluid coupling assembly Patent  
[NASA-CASE-XKS-01985] c 15 N71-10782  
Redundant actuating mechanism Patent  
[NASA-CASE-XGS-08718] c 15 N71-24600  
Quick release hook tape Patent  
[NASA-CASE-XMS-10660-1] c 15 N71-25975  
Delayed simultaneous release mechanism  
[NASA-CASE-GSC-10814-1] c 03 N73-20039  
Tool for releasing optical elements  
[NASA-CASE-GSC-12794-1] c 37 N83-12434

**RELIABILITY ANALYSIS**

Program for computer aided reliability estimation  
[NASA-CASE-NPO-13086-1] c 15 N73-12495

**RELIABILITY ENGINEERING**

Method of improving the reliability of a rolling element system Patent  
[NASA-CASE-XLE-02999] c 15 N71-16052  
Inspection gage for boss Patent  
[NASA-CASE-XMF-04966] c 14 N71-17658  
Valving device for automatic refilling in cryogenic liquid systems  
[NASA-CASE-NPO-11177] c 15 N72-17453  
Electrical connector  
[NASA-CASE-NPO-10694] c 09 N72-20200  
Inherent redundancy electric heater  
[NASA-CASE-MFS-21462-1] c 33 N74-14935  
Hollow rolling element bearings  
[NASA-CASE-LEW-11087-3] c 37 N74-21064  
Reconfiguring redundancy management  
[NASA-CASE-MS-C-18498-1] c 60 N82-29013  
Phase sensitive guidance sensor for wire-fused vehicles  
[NASA-CASE-NPO-15341-1] c 35 N84-33769

**RELIEF VALVES**

Relief valve  
[NASA-CASE-XMS-05894-1] c 15 N69-21924  
Zero gravity separator Patent  
[NASA-CASE-XLE-00586] c 15 N71-15968  
Redundant hydraulic control system for actuators  
[NASA-CASE-MFS-20944] c 15 N73-13466  
Prosthetic urinary sphincter  
[NASA-CASE-MFS-23717-1] c 52 N81-25660  
Ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-1] c 52 N83-21785

**REMOTE CONTROL**

Electromagnetic mirror drive system  
[NASA-CASE-XLA-03724] c 14 N69-27461  
Tubular coupling having frangible connecting means  
[NASA-CASE-XLA-02854] c 15 N69-27490  
Bimetallic power controlled actuator  
[NASA-CASE-XNP-09776] c 09 N69-39929  
Fluid coupling Patent  
[NASA-CASE-XLE-00397] c 15 N70-36492  
Umbilical disconnect Patent  
[NASA-CASE-XLA-00711] c 03 N71-12258  
Remote controlled tubular disconnect Patent  
[NASA-CASE-XLA-01396] c 03 N71-12259  
Three-axis finger tip controller for switches Patent  
[NASA-CASE-XAC-02405] c 09 N71-16089  
Satellite communication system Patent  
[NASA-CASE-XNP-02389] c 07 N71-28900  
Method and apparatus for aligning a laser beam projector Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125  
Solid state remote circuit selector switch  
[NASA-CASE-LEW-10387] c 09 N72-22201  
Laser communication system for controlling several functions at a location remote to the laser  
[NASA-CASE-LAR-10311-1] c 16 N73-16536  
Cooperative multiaxis sensor for teleoperation of article manipulating apparatus  
[NASA-CASE-NPO-13386-1] c 54 N75-27758  
Remotely operable articulated manipulator  
[NASA-CASE-MFS-22707-1] c 37 N76-15457  
Remote manipulator system  
[NASA-CASE-MFS-22022-1] c 37 N76-15460  
Remote lightning monitor system  
[NASA-CASE-KSC-11031-1] c 33 N79-11315  
Simulator method and apparatus for practicing the mating of an observer-controlled object with a target  
[NASA-CASE-MFS-23052-2] c 74 N79-13855  
Terminal guidance sensor system  
[NASA-CASE-NPO-14521-1] c 54 N79-20746  
Terminal guidance sensor system --- space shuttle coupling to orbiting satellites  
[NASA-CASE-NPO-14521-1] c 37 N81-27519

**REMOTE HANDLING**

Remote control manipulator for zero gravity environment  
[NASA-CASE-MFS-14405] c 15 N72-28495  
Apparatus for remote handling of materials --- mixing or analyzing dangerous chemicals  
[NASA-CASE-LAR-10634-1] c 37 N74-18123  
Anthropomorphic master/slave manipulator system  
[NASA-CASE-ARC-10756-1] c 54 N77-32721  
Controller arm for a remotely related slave arm  
[NASA-CASE-ARC-11052-1] c 37 N79-28551  
Apparatus for sequentially transporting containers  
[NASA-CASE-MFS-23846-1] c 37 N82-32731  
Precision manipulator heating and cooling apparatus for use in UHV systems with sample transfer capability  
[NASA-CASE-LAR-13040-1] c 35 N84-29191

**REMOTE MANIPULATOR SYSTEM**

Coupling device for moving vehicles  
[NASA-CASE-GSC-12322-1] c 37 N80-14398  
Apparatus for adapting an end effector device remotely controlled manipulator arm  
[NASA-CASE-MFS-25949-1] c 37 N84-11501

**REMOTE SENSING**

Method and apparatus for Delta K synthetic aperture radar measurement of ocean current  
[NASA-CASE-NPO-15704-1] c 32 N82-28502

**REMOTE SENSORS**

Passive optical wind and turbulence detection system Patent  
[NASA-CASE-XMF-14032] c 20 N71-16340

Pressure monitoring with a plurality of ionization gauges controlled at a central location Patent  
[NASA-CASE-XLE-00787] c 14 N71-21090

Flow angle sensor and read out system Patent  
[NASA-CASE-XLE-04503] c 14 N71-24864

Time synchronization system utilizing moon reflected coded signals Patent  
[NASA-CASE-NPO-10143] c 10 N71-26326

Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437

Intruder detection system  
[NASA-CASE-ARC-10097-2] c 07 N73-25160

Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver  
[NASA-CASE-MFS-21470-1] c 44 N74-19870

Voltage monitoring system  
[NASA-CASE-KSC-10736-1] c 33 N75-19521

Wind sensor  
[NASA-CASE-NPO-13462-1] c 35 N76-24524

Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493

Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753

Penetrometer --- for determining load bearing characteristics of inclined surfaces  
[NASA-CASE-NPO-11103-1] c 35 N77-27367

Remote sensing of vegetation and soil using microwave ellipsometry  
[NASA-CASE-GSC-11976-1] c 43 N78-10529

Remote water monitoring system  
[NASA-CASE-LAR-11973-1] c 35 N78-27384

Radar target for remotely sensing hydrological phenomena  
[NASA-CASE-LAR-12344-1] c 43 N80-18498

Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541

Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137

**REMOVELY PILOTTED VEHICLES**

Rotating launch device for a remotely piloted aircraft  
[NASA-CASE-ARC-10979-1] c 09 N77-19076

**REMOVAL**

Catalyst bed removing tool Patent  
[NASA-CASE-XFR-00811] c 15 N70-36901

Recovery of aluminum from composite propellants  
[NASA-CASE-NPO-14110-1] c 28 N81-15119

Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781

**REPEATERS**

Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773

**REPLACING**

Electron beam tube containing a multiple cathode array employing indexing means for cathode substitution Patent  
[NASA-CASE-NPO-10625] c 09 N71-26182

Mechanical fastener  
[NASA-CASE-LAR-12738-2] c 18 N84-15180

**RESCUE OPERATIONS**

Backpack carrier Patent  
[NASA-CASE-LAR-10056] c 05 N71-12351

Rescue litter flotation assembly Patent  
[NASA-CASE-XMS-04170] c 05 N71-22748

Method of locating persons in distress --- by using radar imagery from radar reflectors  
[NASA-CASE-LAR-11390-1] c 32 N77-21267

**RESEARCH AND DEVELOPMENT**

Tube fabricating process  
[NASA-CASE-LAR-10203-1] c 15 N72-16330

**RESEARCH VEHICLES**

Lunar landing flight research vehicle Patent  
[NASA-CASE-XFR-00929] c 31 N70-34966

Velocity limiting safety system Patent  
[NASA-CASE-XLA-07473] c 15 N71-24895

**RESIDUAL STRESS**

Miniature stress transducer Patent  
[NASA-CASE-XNP-02983] c 14 N71-21091

Method of making a perspiration resistant biopotential electrode  
[NASA-CASE-MSC-90153-2] c 05 N72-25120

**RESILIENCE**

Resilience testing device Patent  
[NASA-CASE-XLA-08254] c 14 N71-26181

**RESIN BONDING**

Method and apparatus for bonding a plastics sleeve onto a metallic body Patent  
[NASA-CASE-XLA-01262] c 15 N71-21404

Covered silicon solar cells and method of manufacture --- with polymeric films  
[NASA-CASE-LEW-11065-2] c 44 N76-14600

Method of manufacture of bonded fiber flywheel --- fiberglass-epoxy  
[NASA-CASE-MFS-23674-1] c 24 N81-29163

**RESIN MATRIX COMPOSITES**

Phosphorus-containing bisimide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272

Improved high temperature resistant polyimides  
[NASA-CASE-LEW-13864-1] c 27 N83-17715

Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900

Method of tracing contour patterns for use in making gradual contour resin matrix composites  
[NASA-CASE-ARC-11246-1] c 31 N83-34073

**RESINS**

Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10098-1] c 06 N71-24739

Bonding or repairing process  
[NASA-CASE-MSC-12357] c 15 N73-12489

Semiconductor surface protection material  
[NASA-CASE-ERC-10339-1] c 18 N73-30532

Composite lamination method  
[NASA-CASE-LAR-12019-1] c 24 N78-17150

Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188

Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854

Fire and heat resistant laminating resins based on maleimido substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697

**RESISTANCE**

Method of making a perspiration resistant biopotential electrode  
[NASA-CASE-MSC-90153-2] c 05 N72-25120

Variable resistance constant tension and lubrication device --- using oil-saturated leather wiper  
[NASA-CASE-KSC-10723-1] c 37 N75-13265

Acoustic ground impedance meter  
[NASA-CASE-LAR-12995-1] c 35 N84-22933

**RESISTANCE HEATING**

Electrothermal rockets having improved heat exchangers Patent  
[NASA-CASE-XLE-01783] c 28 N70-34175

**RESISTORS**

High isolation RF signal selection switches  
[NASA-CASE-NPO-13081-1] c 33 N74-22814

Resistive anode image converter  
[NASA-CASE-HON-10876-1] c 33 N76-27473

Split-cross-bridge-resistor for testing for proper fabrication of integrated circuit  
[NASA-CASE-NPO-16021-1] c 33 N83-24769

Measurement amplifier  
[NASA-CASE-MFS-25868-1] c 33 N84-32680

**RESOLUTION**

Analog-to-digital conversion system Patent  
[NASA-CASE-XAC-00404] c 08 N70-40125

Spectroscopy equipment using a slender cylindrical reflector as a substitute for a slit Patent  
[NASA-CASE-XGS-08269] c 23 N71-26206

Resolution enhanced sound detecting apparatus  
[NASA-CASE-NPO-14134-1] c 71 N79-23753

**RESOLVERS**

Differential phase shift keyed signal resolver  
[NASA-CASE-MSC-14066-1] c 33 N74-27705

Focal axis resolver for offset reflector antennas  
[NASA-CASE-GSC-12630-1] c 33 N83-36355

Magnetic heading reference  
[NASA-CASE-LAR-12638-1] c 04 N84-14132

**RESONANCE**

Optically selective, acoustically resonant gas detecting transducer  
[NASA-CASE-ARC-10639-1] c 35 N78-13400

Resonant isolator for maser amplifier  
[NASA-CASE-NPO-15201-1] c 36 N83-35350

**RESONANT FREQUENCIES**

Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent  
[NASA-CASE-XAC-02807] c 09 N71-23021

Apparatus for detecting the amount of material in a resonant cavity container Patent  
[NASA-CASE-XNP-02500] c 18 N71-27397

Parasitic suppressing circuit  
[NASA-CASE-ERC-10403-1] c 10 N73-26228

CW ultrasonic bolt tensioning monitor  
[NASA-CASE-LAR-12016-1] c 39 N78-15512

Microbalance --- for measuring particle mass  
[NASA-CASE-MSC-11242] c 35 N78-17358

Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15767

Acoustic agglomeration methods and apparatus  
[NASA-CASE-NPO-15466-1] c 71 N82-27087

Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781

Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948

Low noise tuned amplifier  
[NASA-CASE-GSC-12567-1] c 33 N84-22887

Acoustic ground impedance meter  
[NASA-CASE-LAR-12995-1] c 35 N84-22933

**RESONANT VIBRATION**

Arrangement for damping the resonance in a laser diode  
[NASA-CASE-NPO-15980-1] c 36 N82-28618

Variable force, eddy-current or magnetic damper  
[NASA-CASE-LEW-13717-1] c 39 N83-20284

Gravity enhanced acoustic levitation method and apparatus  
[NASA-CASE-NPO-16147-1] c 71 N84-16949

**RESONATORS**

High-Q bandpass resonators utilizing bandstop resonator pairs  
[NASA-CASE-GSC-10990-1] c 09 N73-26195

**RESPIRATION**

Method and system for respiration analysis Patent  
[NASA-CASE-XFR-08403] c 05 N71-11202

**RESPIRATORS**

Respiration monitor  
[NASA-CASE-FRC-10012] c 14 N72-17329

**RESPIRATORY RATE**

Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546

Respiratory analysis system and method  
[NASA-CASE-MSC-13436-1] c 05 N73-32015

Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings  
[NASA-CASE-MFS-21415-1] c 52 N74-20728

Dual physiological rate measurement instrument  
[NASA-CASE-MSC-20078-1] c 52 N82-32971

**RESPIROMETERS**

Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings  
[NASA-CASE-MFS-21415-1] c 52 N74-20728

**RESPONSES**

Frequency division multiplex technique  
[NASA-CASE-KSC-10521] c 07 N73-20176

**RESTARTABLE ROCKET ENGINES**

Zero gravity starting means for liquid propellant motors Patent  
[NASA-CASE-XNP-01390] c 28 N70-41275

Small rocket engine Patent  
[NASA-CASE-XLE-00685] c 28 N70-41992

**RESUSCITATION**

Resuscitation apparatus Patent  
[NASA-CASE-XMS-01115] c 05 N70-39922

**RETAINING**

Floating nut retention system  
[NASA-CASE-MSC-16938-1] c 37 N80-23653

Modified spiral wound retaining ring  
[NASA-CASE-LAR-12361-1] c 37 N83-19091

**RETARDERS (DEVICES)**

Thrust reverser for a long duct fan engine --- for turbofan engines  
[NASA-CASE-LEW-13199-1] c 07 N82-26293

**RETARDING**

Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032

**RETICLES**

Optical tracker having overlapping reticles on parallel axes Patent  
[NASA-CASE-XGS-05715] c 23 N71-16100

Star tracking reticles and process for the production thereof  
[NASA-CASE-GSC-11188-2] c 21 N73-19630

Star tracking reticles  
[NASA-CASE-GSC-11188-1] c 14 N73-32320

Formation of star tracking reticles  
[NASA-CASE-GSC-11188-3] c 74 N74-20008

Star scanner --- with a reticle with a pair of slits having differing separation  
[NASA-CASE-GSC-11569-1] c 89 N74-30886

**RETORT PROCESSING**

Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912

**RETRACTABLE EQUIPMENT**

Runway light Patent  
[NASA-CASE-XLA-00119] c 11 N70-33329

Extensible cable support Patent  
[NASA-CASE-XMF-07587] c 15 N71-18701

Retractable environmental seal  
[NASA-CASE-MFS-23846-1] c 37 N79-22474

Antenna deployment mechanism for use with a spacecraft --- extensible and retractable telescopic antenna mast  
[NASA-CASE-GSC-12331-1] c 18 N80-14183

CAM controlled retractable door latch  
[NASA-CASE-MSC-20304-1] c 37 N82-31690

Extended moment arm anti-spin device  
[NASA-CASE-LAR-12979-1] c 02 N83-29173

Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303

**RETROFIRING**

Visual target for retrofire attitude control  
[NASA-CASE-XMS-12158-1] c 31 N69-27499

Discrete local altitude sensing device Patent  
[NASA-CASE-XMS-03792] c 14 N70-41812

**RETROREFLECTION**

Interferometer servo system Patent  
[NASA-CASE-NPO-10300] c 14 N71-17662

Over-under double-pass interferometer  
[NASA-CASE-NPO-13999-1] c 35 N78-18395

Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510

**RETROREFLECTORS**

Interferometer --- high resolution  
[NASA-CASE-NPO-14448-1] c 74 N81-29963

Low noise lead screw positioner  
[NASA-CASE-NPO-15617-1] c 35 N82-33681

**RETROCKET ENGINES**

Steerable solid propellant rocket motor Patent  
[NASA-CASE-XNP-00234] c 28 N70-38645

**REUSABLE HEAT SHIELDING**

High temperature glass thermal control structure and coating --- for application to spacecraft reusable heat shielding  
[NASA-CASE-ARC-11164-1] c 44 N83-34448

**REUSABLE SPACECRAFT**

Recoverable single stage spacecraft booster Patent  
[NASA-CASE-XMF-01973] c 31 N70-41588

Space shuttle vehicle and system  
[NASA-CASE-MSC-12433] c 31 N73-14854

Aerospace vehicle  
[NASA-CASE-LAR-13155-1] c 18 N84-20628

**REUSE**

Silica reusable surface insulation  
[NASA-CASE-ARC-10721-1] c 27 N76-22376

Reusable thermal cycling clamp --- holders for directional solidification experiments  
[NASA-CASE-LAR-12888-1] c 27 N82-18390

Reusable captive blind fastener  
[NASA-CASE-MSC-18742-1] c 37 N82-26673

**REVERSE OSMOSIS**

Reverse osmosis membrane of high urea rejection properties --- water purification  
[NASA-CASE-ARC-10980-1] c 27 N80-23452

Method for the preparation of thin-skinned asymmetric reverse osmosis membranes and products thereof  
[NASA-CASE-ARC-11359-1] c 51 N84-28361

**REVERSED FLOW**

Multistage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00170] c 15 N70-36412

Reversible current control apparatus Patent  
[NASA-CASE-XLA-09371] c 10 N71-18724

Positive locking check valve Patent  
[NASA-CASE-XMS-09310] c 15 N71-22706

Reverse pitch fan with divided splitter  
[NASA-CASE-LEW-12760-1] c 07 N77-17059

**REYNOLDS NUMBER**

Wind tunnel test section  
[NASA-CASE-MFS-20509] c 11 N72-17183

**REYNOLDS STRESS**

System for measuring Reynolds in a turbulently flowing fluid --- signal processing  
[NASA-CASE-ARC-10755-2] c 34 N76-27517

**RHENIUM**

Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12050-1] c 35 N77-32454

**RHEOLOGY**

Melt-flow-toughness modified polyimide  
[NASA-CASE-LAR-13135-1] c 27 N84-34616

**RHEOMETERS**

Viscosity measuring instrument  
[NASA-CASE-NPO-14501-1] c 35 N80-18357

**RHOMBOIDS**

Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978

**RIBBONS**

Formed metal ribbon wrap Patent  
[NASA-CASE-XLE-00164] c 15 N70-36411

Forming tool for ribbon or wire  
[NASA-CASE-XLA-05966] c 15 N72-12408

Twisted multifilament superconductor  
[NASA-CASE-LEW-11726-1] c 26 N73-26752

Method of controlling defect orientation in silicon crystal ribbon growth  
[NASA-CASE-NPO-13918-1] c 76 N79-11920

Solar array strip and a method for forming the same  
[NASA-CASE-NPO-13652-1] c 44 N79-17314

Growth of silicon carbide crystals on a seed while pulling silicon crystals from a melt  
[NASA-CASE-NPO-13969-1] c 76 N79-23798

Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13652-2] c 44 N79-24431

Method for forming a solar array strip  
[NASA-CASE-NPO-13652-3] c 44 N80-14474

Means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains  
[NASA-CASE-NPO-14298-1] c 76 N80-32244

Method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width  
[NASA-CASE-NPO-14295-1] c 76 N80-32245

Apparatus for use in the production of ribbon-shaped crystals from a silicon melt  
[NASA-CASE-NPO-14297-1] c 33 N81-19389

Method of increasing minority carrier lifetime in silicon web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888

Arc spray fabrication of metal matrix composite monolayer --- high temperature fiber-reinforced superalloy composites  
[NASA-CASE-LEW-13828-1] c 24 N84-15203

**RIBOFLAVIN**

Flavin coenzyme assay  
[NASA-CASE-GSC-10565-1] c 06 N72-25149

**RIBS (SUPPORTS)**

Aeroflexible structures  
[NASA-CASE-XLA-06095] c 01 N69-39981

**RICE**

Modification of the physical properties of freeze-dried rice  
[NASA-CASE-MSC-13540-1] c 05 N72-33096

**RIDING QUALITY**

Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445

**RIGID ROTORS**

Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029

**RIGID STRUCTURES**

Quick release hook tape Patent  
[NASA-CASE-XMS-10860-1] c 15 N71-25975

Thermally activated foaming compositions Patent  
[NASA-CASE-LAR-10373-1] c 18 N71-26155

Adjustable mount for a trihedral mirror Patent  
[NASA-CASE-XNP-08907] c 23 N71-29123

Folding structure fabricated of rigid panels  
[NASA-CASE-XHQ-02148] c 18 N75-27040

Telescoping columns --- parabolic antenna support  
[NASA-CASE-LAR-12195-1] c 31 N81-27324

**RIGID WINGS**

Flexible wing deployment device Patent  
[NASA-CASE-XLA-01220] c 02 N70-41863

**RIMS**

Rim inertial measuring system  
[NASA-CASE-LAR-12052-1] c 18 N81-29152

**RING CURRENTS**

Ring counter  
[NASA-CASE-XGS-03095] c 09 N69-27463

**RING STRUCTURES**

Reversible ring counter employing cascaded single SCR stages Patent  
[NASA-CASE-XGS-01473] c 09 N71-10673

Energy absorbing device Patent  
[NASA-CASE-XMF-10040] c 15 N71-22877

Phase-locked servo system --- for synchronizing the rotation of slip ring assembly  
[NASA-CASE-MFS-22073-1] c 33 N75-13139

Laser system with an antiresonant optical ring  
[NASA-CASE-HQN-10844-1] c 38 N75-19653

Helmet latching and attaching ring  
[NASA-CASE-XMS-04670] c 54 N78-17678

Collapsible corrugated horn antenna  
[NASA-CASE-LAR-11745-1] c 32 N80-29539

Modified spiral wound retaining ring  
[NASA-CASE-LAR-12361-1] c 37 N83-19091

A multistage spent particle collector and a method for making same  
[NASA-CASE-LEW-13914-1] c 35 N84-12447

**RING WINGS**

Ring wing tension vehicle Patent  
[NASA-CASE-XLA-04901] c 31 N71-24315

**RIPPLES**

Ripple indicator  
[NASA-CASE-KSC-10162] c 09 N72-11225

**RIVETS**

Printed circuit board with bellows rivet connection Patent  
[NASA-CASE-XNP-05082] c 15 N70-41960

## ROBOTS

Range system --- industrial robotics  
[NASA-CASE-NPO-15865-1] c 74 N83-12991

**ROCKET ENGINE CASES**

Method of making a rocket motor casing Patent  
[NASA-CASE-XLE-00409] c 28 N71-15658

Rocket motor casing Patent  
[NASA-CASE-XLE-05689] c 28 N71-15659

Payload/burned-out motor case separation system Patent  
[NASA-CASE-XLA-05369] c 31 N71-15687

Solid propellant liner Patent  
[NASA-CASE-XNP-09744] c 27 N71-16392

Ion engine casing construction and method of making same Patent  
[NASA-CASE-XNP-06942] c 28 N71-23293

Casting propellant in rocket engine  
[NASA-CASE-LAR-11995-1] c 28 N77-10213

Solid propellant rocket motor and method of making same  
[NASA-CASE-XLA-1349] c 20 N77-17143

**ROCKET ENGINE CONTROL**

Fluid thrust control system --- for liquid propellant rocket engines  
[NASA-CASE-XMF-05964-1] c 20 N79-21124

**ROCKET ENGINE DESIGN**

Annular rocket motor and nozzle configuration Patent  
[NASA-CASE-XLE-00078] c 28 N70-33284

Spherical solid-propellant rocket motor Patent  
[NASA-CASE-XLA-00105] c 28 N70-33331

Spherically-shaped rocket motor Patent  
[NASA-CASE-XHQ-01897] c 28 N70-35381

Rocket engine Patent  
[NASA-CASE-XLE-00342] c 28 N70-37980

Swirling flow nozzle Patent  
[NASA-CASE-XNP-03692] c 28 N71-24321

Ion thruster with a combination keeper electrode and electron baffle  
[NASA-CASE-NPO-11880] c 28 N73-24783

Supersonic-combustion rocket  
[NASA-CASE-LEW-11058-1] c 20 N74-13502

Rocket chamber and method of making  
[NASA-CASE-LEW-11118-2] c 20 N78-14181

System for imposing directional stability on a rocket-propelled vehicle  
[NASA-CASE-MFS-21311-1] c 20 N78-21275

**ROCKET ENGINES**

Channel-type shell construction for rocket engines and the like Patent  
[NASA-CASE-XLE-00144] c 28 N70-34880

Ion thruster cathode Patent Application  
[NASA-CASE-LEW-10814-1] c 28 N70-35422

Injector-valve device Patent  
[NASA-CASE-XLE-00303] c 15 N70-36535

Elastic universal joint Patent  
[NASA-CASE-XNP-00418] c 15 N70-38947

Passively regulated water electrolysis rocket engine Patent  
[NASA-CASE-XGS-08729] c 28 N71-14044

Method of igniting solid propellants Patent  
[NASA-CASE-XLE-01988] c 27 N71-15634

Laminar flow enhancement Patent  
[NASA-CASE-NPO-10122] c 12 N71-17631

Swirling flow nozzle Patent  
[NASA-CASE-XNP-03692] c 28 N71-24321

Thruster maintenance system Patent  
[NASA-CASE-MFS-20325] c 28 N71-27095

Purge device for thrust engines Patent  
[NASA-CASE-XMS-04826] c 28 N71-28849

Method and device for cooling Patent  
[NASA-CASE-HQN-00938] c 33 N71-29053

Ion thruster magnetic field control  
[NASA-CASE-LEW-10835-1] c 28 N72-22771

Altitude simulation chamber for rocket engine testing  
[NASA-CASE-MFS-20620] c 11 N72-27262

Method of making apparatus for sensing temperature  
[NASA-CASE-XLE-05230-2] c 14 N73-13417

Magneto-plasma-dynamic arc thruster  
[NASA-CASE-LEW-11180-1] c 25 N73-25760

Method of electroforming a rocket chamber  
[NASA-CASE-LEW-11118-1] c 20 N74-32919

Device for installing rocket engines  
[NASA-CASE-MFS-19220-1] c 20 N78-22296

Ion beam thruster shield  
[NASA-CASE-LEW-12082-1] c 20 N77-10148

Anode for ion thruster  
[NASA-CASE-LEW-12048-1] c 20 N77-20162

General purpose rocket furnace  
[NASA-CASE-MFS-23460-1] c 12 N79-26075

Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749

**ROCKET EXHAUST**

Thrust vector control apparatus Patent  
[NASA-CASE-XLE-00208] c 28 N70-34294

Rocket thrust throttling system  
[NASA-CASE-LEW-10374-1] c 28 N73-13773

Method and apparatus for suppressing ignition overpressure in solid rocket propulsion systems  
[NASA-CASE-MFS-25843-1] c 20 N83-17588

**ROCKET FIRING**  
Alleviation of divergence during rocket launch Patent  
[NASA-CASE-XLA-00258] c 31 N71-15663

**ROCKET FLIGHT**  
Technique for control of free-flight rocket vehicles Patent  
[NASA-CASE-XLA-00937] c 31 N71-17691

**ROCKET LAUNCHING**  
Alleviation of divergence during rocket launch Patent  
[NASA-CASE-XLA-00258] c 31 N71-15663

Controlled release device Patent  
[NASA-CASE-XKS-03338] c 15 N71-24043

**ROCKET LININGS**  
Heat exchanger and method of making --- rocket lining  
[NASA-CASE-LEW-12441-2] c 34 N80-24573

**ROCKET NOZZLES**  
Gimbaled, partially submerged rocket nozzle Patent  
[NASA-CASE-XMF-01544] c 28 N70-34162

Rocket thrust chamber Patent  
[NASA-CASE-XLE-00145] c 28 N70-36806

Self-sealing, unbonded, rocket motor nozzle closure Patent  
[NASA-CASE-XLA-02651] c 28 N70-41967

Automatically deploying nozzle exit cone extension Patent  
[NASA-CASE-XLE-01640] c 31 N71-15637

Rocket nozzle test method Patent  
[NASA-CASE-NPO-10311] c 31 N71-15643

Collapse nozzle extension for rocket engines Patent  
[NASA-CASE-MFS-11497] c 28 N71-16224

Apparatus and method for protecting a photographic device Patent  
[NASA-CASE-NPO-10174] c 14 N71-18465

Multislit film cooled pyrolytic graphite rocket nozzle Patent  
[NASA-CASE-XNP-04389] c 28 N71-20942

Prestressed refractory structure Patent  
[NASA-CASE-XNP-02888] c 18 N71-21068

Swirling flow nozzle Patent  
[NASA-CASE-XNP-03692] c 28 N71-24321

Method and device for cooling Patent  
[NASA-CASE-HQN-00938] c 33 N71-29053

Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708

Solid propellant rocket motor nozzle  
[NASA-CASE-NPO-11458] c 28 N72-23810

Method of making a rocket nozzle  
[NASA-CASE-XMF-06884-1] c 20 N79-21123

Retractable environmental seal  
[NASA-CASE-MFS-23646-1] c 37 N79-22474

**ROCKET OXIDIZERS**  
Preparing oxidizer coated metal fuel particles  
[NASA-CASE-NPO-11975-1] c 28 N74-33209

**ROCKET PROPELLANTS**  
Two-step rocket engine bipropellant valve Patent  
[NASA-CASE-XMS-04890-1] c 15 N70-22192

Rocket engine injector Patent  
[NASA-CASE-XLE-03157] c 28 N71-24736

Bipropellant injector  
[NASA-CASE-XNP-09461] c 28 N72-23809

**ROCKET TEST FACILITIES**  
High-vacuum condenser tank for ion rocket tests Patent  
[NASA-CASE-XLE-00168] c 11 N70-33278

Micro-pound extended range thrust stand Patent  
[NASA-CASE-GSC-10710-1] c 28 N71-27094

**ROCKET THRUST**  
Apparatus and method for control of a solid fueled rocket vehicle Patent  
[NASA-CASE-XNP-00217] c 28 N70-38181

Electrostatic thruster with improved insulators Patent  
[NASA-CASE-XLE-01802] c 28 N71-10574

Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784

Thrust measurement  
[NASA-CASE-XMS-05731] c 35 N75-29382

**ROCKET VEHICLES**  
Umbilical separator for rockets Patent  
[NASA-CASE-XNP-00425] c 11 N70-38202

Support apparatus for dynamic testing Patent  
[NASA-CASE-XMF-01772] c 11 N70-41677

Alleviation of divergence during rocket launch Patent  
[NASA-CASE-XLA-00258] c 31 N71-15663

Technique for control of free-flight rocket vehicles Patent  
[NASA-CASE-XLA-00937] c 31 N71-17691

Coupling device for moving vehicles  
[NASA-CASE-GSC-12322-1] c 37 N80-14398

High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272

**ROCKET-BORNE INSTRUMENTS**  
Scanning aspect sensor employing an apertured disc and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432

**ROCKETS**  
Hydrogen fire detection system with logic circuit to analyze the spectrum of temporal variations of the optical spectrum  
[NASA-CASE-MFS-13130] c 10 N72-17173

**ROCKS**  
Rock drill for recovering samples  
[NASA-CASE-XNP-07478] c 14 N69-21923

Rock sampling --- apparatus for controlling particle size  
[NASA-CASE-XNP-10007-1] c 46 N74-23068

Rock sampling --- method for controlling particle size distribution  
[NASA-CASE-XNP-09755] c 46 N74-23069

Coal-rock interface detector  
[NASA-CASE-MFS-23725-1] c 43 N79-31706

**RODS**  
Nuclear thermionic converter --- tungsten-thorium oxide rods  
[NASA-CASE-NPO-13121-1] c 73 N77-18891

**ROLL**  
Roll alignment detector  
[NASA-CASE-GSC-10514-1] c 14 N72-20379

**ROLLER BEARINGS**  
Method of lubricating rolling element bearings Patent  
[NASA-CASE-XLE-09527] c 15 N71-17688

Semi-linear ball bearing Patent  
[NASA-CASE-XLA-02809] c 15 N71-22982

Low mass rolling element for bearings  
[NASA-CASE-LEW-11087-1] c 15 N73-30458

Method of making rolling element bearings  
[NASA-CASE-LEW-11087-2] c 37 N74-15128

Bearing material --- composite material with low friction surface for rolling or sliding contact  
[NASA-CASE-LEW-11930-1] c 24 N76-22309

**ROLLERS**  
Method of improving the reliability of a rolling element system Patent  
[NASA-CASE-XLE-02999] c 15 N71-16052

Load regulating latch  
[NASA-CASE-MSC-19535-1] c 37 N77-32499

Suspension system for a wheel rolling on a flat track --- bearings for directional antennas  
[NASA-CASE-NPO-14395-1] c 37 N82-21587

**ROLLING CONTACT LOADS**  
Rolling element bearings Patent  
[NASA-CASE-XLE-09527-2] c 15 N71-26189

**ROLLING MOMENTS**  
Roll attitude star sensor system Patent  
[NASA-CASE-XNP-01307] c 21 N70-41856

**ROOM TEMPERATURE**  
Coating process  
[NASA-CASE-XNP-06508] c 18 N69-39895

**ROTARY STABILITY**  
Reactance control system Patent  
[NASA-CASE-XMF-01598] c 21 N71-15583

Two component bearing Patent  
[NASA-CASE-XLA-00013] c 15 N71-29136

Lubricated journal bearing  
[NASA-CASE-LEW-11076-3] c 37 N75-30562

Cyclical bi-directional rotary actuator  
[NASA-CASE-GSC-11883-1] c 37 N77-19458

Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability  
[NASA-CASE-LAR-12843-1] c 02 N84-11136

Apparatus for and method of compensating dynamic unbalance  
[NASA-CASE-GSC-12550-1] c 37 N84-28082

**ROTARY WING AIRCRAFT**  
Aircraft control system  
[NASA-CASE-ERC-10439] c 02 N73-19004

**ROTARY WINGS**  
Variable geometry rotor system  
[NASA-CASE-LAR-10557] c 02 N72-11018

Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029

Locking redundant link  
[NASA-CASE-LAR-11900-1] c 37 N79-14382

Acoustically swept rotor --- helicopter noise reduction  
[NASA-CASE-ARC-11106-1] c 05 N80-14107

Compensating linkage for main rotor control  
[NASA-CASE-LAR-11797-1] c 05 N81-19087

Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability  
[NASA-CASE-LAR-12843-1] c 02 N84-11136

Shapes for rotating airfoils  
[NASA-CASE-LAR-12396-1] c 02 N84-28732

Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400

## ROTATING BODIES

Optical spin compensator  
[NASA-CASE-XGS-02401] c 14 N69-27485

Laser apparatus for removing material from rotating objects Patent  
[NASA-CASE-MFS-11279] c 16 N71-20400

Phase-locked servo system --- for synchronizing the rotation of slip ring assembly  
[NASA-CASE-MFS-22073-1] c 33 N75-13139

Annular momentum control device used for stabilization of space vehicles and the like  
[NASA-CASE-LAR-11051-1] c 15 N76-14158

Axially and radially controllable magnetic bearing  
[NASA-CASE-GSC-11551-1] c 37 N76-18459

Multiple in-line docking capability for rotating space stations  
[NASA-CASE-MFS-20855-1] c 15 N77-10112

Rotatable mass for a flywheel  
[NASA-CASE-MFS-23051-1] c 37 N79-10422

Acoustic driving of rotor  
[NASA-CASE-NPO-14005-1] c 71 N79-20827

Multi-channel rotating optical interface for data transmission  
[NASA-CASE-NPO-14066-1] c 74 N79-34011

Apparatus for and method of compensating dynamic unbalance  
[NASA-CASE-GSC-12550-1] c 37 N84-28082

## ROTATING CYLINDERS

Tread drum for animals --- having an electrical shock station  
[NASA-CASE-ARC-10917-1] c 51 N78-27733

Head for high speed spinner having a vacuum chuck --- holding silicon dioxide chips for etching  
[NASA-CASE-NPO-15227-1] c 37 N81-33482

## ROTATING DISKS

Foil seal  
[NASA-CASE-XLE-05130] c 15 N69-21362

Scanning aspect sensor employing an apertured disc and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432

Redundant disc  
[NASA-CASE-LEW-12496-1] c 07 N78-33101

Spinning disk calibration method and apparatus for laser Doppler velocimeter  
[NASA-CASE-ARC-11510-1] c 35 N84-25015

## ROTATING ELECTRICAL MACHINES

Light intensity modulator controller Patent  
[NASA-CASE-XMS-04300] c 09 N71-19479

Direct current motor with stationary armature and field Patent  
[NASA-CASE-XGS-05290] c 09 N71-25999

Constant frequency output two stage induction machine systems Patent  
[NASA-CASE-ERC-10065] c 09 N71-27364

## ROTATING ENVIRONMENTS

Radial module space station Patent  
[NASA-CASE-XMS-01908] c 31 N70-41373

Rotating space station simulator Patent  
[NASA-CASE-XLA-03127] c 11 N71-10776

## ROTATING GENERATORS

Rotating raster generator  
[NASA-CASE-FRC-10071-1] c 32 N74-20813

Wind wheel electric power generator  
[NASA-CASE-MFS-23515-1] c 44 N80-21828

Wingtip vortex turbine  
[NASA-CASE-LAR-12544-1] c 07 N81-27096

## ROTATING MIRRORS

Retrodirective modulator Patent  
[NASA-CASE-GSC-10062] c 14 N71-15605

Attitude sensor for space vehicles Patent  
[NASA-CASE-XLA-00793] c 21 N71-22880

Method for generating ultra-precise angles Patent  
[NASA-CASE-XGS-04173] c 19 N71-26674

Method and apparatus for optically monitoring the angular position of a rotating mirror  
[NASA-CASE-GSC-11353-1] c 74 N74-21304

## ROTATING SHAFTS

Foil seal Patent  
[NASA-CASE-XLE-05130-2] c 15 N71-19570

Anemometer with braking mechanism Patent  
[NASA-CASE-XMF-05224] c 14 N71-23726

Detenting servomotor Patent  
[NASA-CASE-XNP-06938] c 15 N71-24695

Rotating shaft seal Patent  
[NASA-CASE-XNP-02862-1] c 15 N71-26294

Two component bearing Patent  
[NASA-CASE-XLA-00013] c 15 N71-29136

Hall effect transducer  
[NASA-CASE-LAR-10620-1] c 09 N72-25255

Spiral groove seal --- for rotating shaft  
[NASA-CASE-XLE-10326-4] c 37 N74-15125

Digital servo controller --- for rotating antenna shaft  
[NASA-CASE-KSC-10769-1] c 33 N74-29556

Solid medium thermal engine  
[NASA-CASE-ARC-10461-1] c 44 N74-33379

Ergometer calibrator --- for any ergometer utilizing rotating shaft  
 [NASA-CASE-MFS-21045-1] c 35 N75-15932  
 Fluid seal for rotating shafts  
 [NASA-CASE-LEW-11676-1] c 37 N76-22541  
 Cyclical bi-directional rotary actuator  
 [NASA-CASE-GSC-11883-1] c 37 N77-19458  
 Tachometer  
 [NASA-CASE-MFS-23175-1] c 35 N77-30436  
 Rotary leveling base platform  
 [NASA-CASE-ARC-10981-1] c 37 N78-27425  
 Rotary electric device  
 [NASA-CASE-GSC-12138-1] c 33 N79-20314  
 Circumferential shaft seal  
 [NASA-CASE-LEW-12119-1] c 37 N80-28711  
 Multiple plate hydrostatic viscous damper  
 [NASA-CASE-LEW-12445-1] c 37 N81-22360  
 Clutchless multiple drive source for output shaft  
 [NASA-CASE-ARC-11325-1] c 37 N82-22496  
 Variable force, eddy-current or magnetic damper  
 [NASA-CASE-LEW-13717-1] c 39 N83-20284  
 Rotary stepping device with memory metal actuator  
 [NASA-CASE-NPO-15482-1] c 37 N83-36484  
 Resilient seal ring assembly with spring means applying force to wedge member --- cryogenic applications  
 [NASA-CASE-MFS-25678-1] c 37 N84-11497  
 Vertical shaft windmill  
 [NASA-CASE-LAR-12923-1] c 37 N84-12493  
 Directional gear ratio transmissions  
 [NASA-CASE-LAR-12644-1] c 37 N84-28084

**ROTATION**  
 Semi-linear ball bearing Patent  
 [NASA-CASE-XLA-02809] c 15 N71-22982  
 Mechanical actuator Patent  
 [NASA-CASE-XGS-04548] c 15 N71-24045  
 Positioning mechanism  
 [NASA-CASE-NPO-10679] c 15 N72-21462  
 Spray coating apparatus having a rotatable workpiece holder  
 [NASA-CASE-ARC-11110-1] c 37 N82-24492  
 System for controlled acoustic rotation of objects  
 [NASA-CASE-NPO-15522-1] c 71 N83-32516  
 Acoustic rotation control  
 [NASA-CASE-NPO-15689-1] c 71 N84-23233

**ROTOR AERODYNAMICS**  
 Acoustically swept rotor --- helicopter noise reduction  
 [NASA-CASE-ARC-11106-1] c 05 N80-14107

**ROTOR BLADES**  
 Non-destructive method for applying and removing instrumentation on helicopter rotor blades  
 [NASA-CASE-LAR-11201-1] c 35 N78-24515  
 Apparatus and method for reducing thermal stress in a turbine rotor  
 [NASA-CASE-LEW-12232-1] c 07 N79-10057

**ROTOR BLADES (TURBOMACHINERY)**  
 Locking device for turbine rotor blades Patent  
 [NASA-CASE-XNP-00816] c 28 N71-28928  
 Turbo-machine blade vibration damper Patent  
 [NASA-CASE-XLE-00155] c 28 N71-29154  
 Apparatus for welding blades to rotors  
 [NASA-CASE-LEW-10533-2] c 37 N74-11300  
 Supersonic fan blading --- noise reduction in turbofan engines  
 [NASA-CASE-LEW-11402-1] c 07 N74-28226  
 Blade retainer assembly  
 [NASA-CASE-LEW-12608-1] c 07 N77-27116  
 Platform for a swing root turbomachinery blade  
 [NASA-CASE-LEW-12312-1] c 07 N77-32148  
 Rotor blade with passive tuned tab  
 [NASA-CASE-ARC-11444-1] c 02 N83-25663  
 Tip cap for a rotor blade  
 [NASA-CASE-LEW-13654-1] c 07 N84-22560  
 Oxidizing seal for a turbine tip gas path  
 [NASA-CASE-LEW-14053-1] c 07 N84-22563  
 Shapes for rotating airfoils  
 [NASA-CASE-LAR-12396-1] c 02 N84-28732

**ROTOR LIFT**  
 Constant lift rotor for a heavier than air craft  
 [NASA-CASE-ARC-11045-1] c 05 N79-17847

**ROTOR SPEED**  
 Brushless direct current tachometer Patent  
 [NASA-CASE-MFS-20385] c 09 N71-24904  
 Improved method for driving two-phase turbines with enhanced efficiency  
 [NASA-CASE-NPO-15037-1] c 37 N80-26660

**ROTORCRAFT AIRCRAFT**  
 Constant lift rotor for a heavier than air craft  
 [NASA-CASE-ARC-11045-1] c 05 N79-17847

**ROTORS**  
 Multistage multiple-reentry turbine Patent  
 [NASA-CASE-XLE-00085] c 28 N70-39895  
 Angular position and velocity sensing apparatus Patent  
 [NASA-CASE-XGS-05680] c 14 N71-17585  
 Indexing microwave switch Patent  
 [NASA-CASE-XNP-06507] c 09 N71-23548

Detenting servomotor Patent  
 [NASA-CASE-XNP-06936] c 15 N71-24695  
 Rotary vane attenuator wherein rotor has orthogonally disposed resistive and dielectric cards  
 [NASA-CASE-NPO-11418-1] c 14 N73-13420  
 Welding blades to rotors  
 [NASA-CASE-LEW-10533-1] c 15 N73-28515  
 Magnetic field control --- electromechanical torquing device  
 [NASA-CASE-MFS-23828-1] c 33 N82-26569  
 Damping seal for turbomachinery  
 [NASA-CASE-MFS-25842-1] c 37 N83-26080  
 Dual clearance squeeze film damper  
 [NASA-CASE-LEW-13506-1] c 07 N84-22562

**RUBBER**  
 Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil  
 [NASA-CASE-NPO-08835-1] c 27 N78-33228  
 Formulated plastic separators for soluble electrode cells --- rubber-ion transport membranes  
 [NASA-CASE-LEW-12358-1] c 44 N79-17313  
 Enhancement of in vitro guanylate propagation  
 [NASA-CASE-NPO-15213-1] c 51 N83-17045  
 Elastomer toughened polyimide adhesives  
 [NASA-CASE-LAR-12775] c 27 N83-29390

**RUBBER COATINGS**  
 Intumescent paint containing nitrile rubber  
 [NASA-CASE-ARC-10196-1] c 18 N73-13562

**RUBY**  
 Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
 [NASA-CASE-GSC-11577-1] c 37 N75-15992  
 Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
 [NASA-CASE-GSC-11577-3] c 24 N79-25143

**RUBY LASERS**  
 Laser coolant and ultraviolet filter  
 [NASA-CASE-MFS-20180] c 16 N72-12440

**RUNWAY ALIGNMENT**  
 Magnetic position detection method and apparatus  
 [NASA-CASE-ARC-10179-1] c 21 N72-22619

**RUNWAY CONDITIONS**  
 Warm fog dissipation using large volume water sprays  
 [NASA-CASE-MFS-25962-1] c 09 N84-32398

**RUNWAY LIGHTS**  
 Runway light Patent  
 [NASA-CASE-XLA-00119] c 11 N70-33329  
 Spectrally balanced chromatic landing approach lighting system  
 [NASA-CASE-ARC-10990-1] c 04 N82-16059

**RUNWAYS**  
 Warm fog dissipation using large volume water sprays  
 [NASA-CASE-MFS-25962-1] c 09 N84-32398

**RUPTURING**  
 Means for controlling rupture of shock tube diaphragms Patent  
 [NASA-CASE-XAC-00731] c 11 N71-15960

**S**

**SABOT PROJECTILES**  
 Hypervelocity gun --- using both electric and chemical energy for projectile propulsion  
 [NASA-CASE-XLE-03186-1] c 09 N79-21084

**SAFETY**  
 Phosphorus-containing imide resins  
 [NASA-CASE-ARC-11368-3] c 27 N84-22745

**SAFETY DEVICES**  
 Pressure suit tie-down mechanism Patent  
 [NASA-CASE-XMS-00784] c 05 N71-12335  
 Positive locking check valve Patent  
 [NASA-CASE-XMS-09310] c 15 N71-22706  
 Protective device for machine and metalworking tools Patent  
 [NASA-CASE-XLE-01092] c 15 N71-22797  
 Velocity limiting safety system Patent  
 [NASA-CASE-XLA-07473] c 15 N71-24895  
 Combustion products generating and metering device  
 [NASA-CASE-GSC-11095-1] c 14 N72-10375  
 Restraint torso for a pressurized suit  
 [NASA-CASE-MSC-12397-1] c 05 N72-25119  
 Totally confined explosive welding --- apparatus to reduce noise level and protect personnel during explosive bonding  
 [NASA-CASE-LAR-10941-1] c 37 N74-21057  
 Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft  
 [NASA-CASE-LAR-10753-1] c 08 N74-30421  
 Shoulder harness and lap belt restraint system  
 [NASA-CASE-ARC-10519-2] c 05 N75-25915  
 Fifth wheel  
 [NASA-CASE-FRC-10081-1] c 37 N77-14477  
 Microwave power transmission beam safety system  
 [NASA-CASE-NPO-14224-1] c 33 N80-18287

Safety shield for vacuum/pressure chamber viewing port  
 [NASA-CASE-GSC-12513-1] c 31 N81-19343  
 Variable response load limiting device --- for aircraft seats  
 [NASA-CASE-LAR-12801-1] c 37 N82-20544

**SAFETY FACTORS**  
 Safety flywheel --- using flexible materials energy storage  
 [NASA-CASE-HQN-10888-1] c 44 N79-14527  
 Device and method for frictionally testing materials for ignitability  
 [NASA-CASE-MSC-20622-1] c 14 N84-22596

**SAHA EQUATIONS**  
 Cosmic dust analyzer  
 [NASA-CASE-MSC-13802-2] c 35 N76-15431

**SALT BATHS**  
 Process for applying a protective coating for salt bath brazing Patent  
 [NASA-CASE-XLE-00046] c 15 N70-33311

**SAMARIUM**  
 Gd or Sm doped silicon semiconductor composition Patent  
 [NASA-CASE-XLE-10715] c 26 N71-23292

**SAMPLERS**  
 Vacuum probe surface sampler  
 [NASA-CASE-LAR-10623-1] c 14 N73-30395  
 Automated syringe sampler --- remote sampling of air and water  
 [NASA-CASE-LAR-12308-1] c 35 N81-29407  
 Optical multiple sample vacuum integrating sphere  
 [NASA-CASE-GSC-12849-1] c 74 N84-15960  
 Precision manipulator heating and cooling apparatus for use in UHV systems with sample transfer capability  
 [NASA-CASE-LAR-13040-1] c 35 N84-29191

**SAMPLES**  
 Plural output optometric sample cell and analysis system  
 [NASA-CASE-NPO-10233-1] c 74 N78-33913  
 Mobile sampler for use in acquiring samples of terrestrial atmospheric gases  
 [NASA-CASE-NPO-15220-1] c 45 N83-25217

**SAMPLING**  
 Sample collecting impact bit Patent  
 [NASA-CASE-XNP-01412] c 15 N70-42034  
 Fluid sample collector Patent  
 [NASA-CASE-XMS-06767-1] c 14 N71-20435  
 Atmospheric sampling devices  
 [NASA-CASE-NPO-11373] c 13 N72-25323  
 Digital to analog conversion apparatus  
 [NASA-CASE-MSC-12458-1] c 08 N73-32081  
 Rock sampling --- apparatus for controlling particle size  
 [NASA-CASE-XNP-10007-1] c 46 N74-23068  
 Rock sampling --- method for controlling particle size distribution  
 [NASA-CASE-XNP-09755] c 46 N74-23069  
 Apparatus for microbiological sampling --- including automatic swabbing  
 [NASA-CASE-LAR-11069-1] c 35 N75-12272  
 Automatic biowaste sampling  
 [NASA-CASE-MSC-14640-1] c 54 N76-14804  
 Remote water monitoring system  
 [NASA-CASE-LAR-11973-1] c 35 N78-27384  
 CCD correlated quadruple sampling processor  
 [NASA-CASE-NPO-14426-1] c 33 N79-17134  
 Fluid sample collection and distribution system --- qualitative analysis of aqueous samples from several points  
 [NASA-CASE-MSC-16841-1] c 34 N79-24285  
 Method for detecting coliform organisms  
 [NASA-CASE-ARC-11322-1] c 51 N83-28849

**SANDWICH STRUCTURES**  
 Sandwich panel construction Patent  
 [NASA-CASE-XLA-00349] c 33 N70-37979  
 Micrometeoroid velocity measuring device Patent  
 [NASA-CASE-XLA-00485] c 14 N70-41332  
 Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent  
 [NASA-CASE-XLE-01246] c 14 N71-10797  
 Method of making inflatable honeycomb Patent  
 [NASA-CASE-XLA-03492] c 15 N71-22713  
 Convoluting device for forming convolutions and the like Patent  
 [NASA-CASE-XNP-05297] c 15 N71-23811  
 Composite sandwich lattice structure  
 [NASA-CASE-LAR-11898-1] c 24 N78-10214  
 Low density bismaleimide-carbon microballoon composites  
 [NASA-CASE-ARC-11040-1] c 24 N79-16915  
 Superplastically formed diffusion bonded metallic structure  
 [NASA-CASE-FRC-11026-1] c 24 N82-24296  
 Multiwall thermal protection system  
 [NASA-CASE-LAR-12620-1] c 24 N82-32417



**SAPPHIRE**

- Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-1] c 37 N75-15992
- Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-3] c 24 N79-25143

**SATELLITE ANTENNAS**

- Antenna system using parasitic elements and two driven elements at 90 deg angle fed 180 deg out of phase  
Patent  
[NASA-CASE-XLA-00414] c 07 N70-38200
- Apparatus providing a directive field pattern and attitude sensing of a spin stabilized satellite Patent  
[NASA-CASE-XGS-02607] c 31 N71-23009
- Apparatus and method for determining the position of a radiant energy source  
[NASA-CASE-GSC-12147-1] c 32 N81-27341
- Microwave switching power divider — antenna feeds  
[NASA-CASE-GSC-12420-1] c 33 N82-16340

**SATELLITE ATTITUDE CONTROL**

- Photosensitive device to detect bearing deviation  
Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089
- Attitude control for spacecraft Patent  
[NASA-CASE-XNP-02982] c 31 N70-41855
- Satellite despinn device Patent  
[NASA-CASE-XMF-08523] c 31 N71-20396
- Attitude control and damping system for spacecraft Patent  
[NASA-CASE-XLA-02551] c 21 N71-21708
- Gravity gradient attitude control system Patent  
[NASA-CASE-GSC-10555-1] c 21 N71-27324
- Spacecraft attitude control method and apparatus  
[NASA-CASE-HQN-10439] c 21 N72-21624
- Dual purpose momentum wheels for spacecraft with magnetic recording  
[NASA-CASE-NPO-11481] c 21 N73-13844
- Combination automatic-starting electrical plasma torch and gas shutoff valve — for satellite attitude control  
[NASA-CASE-XLE-10717] c 37 N75-29426
- Attitude control system  
[NASA-CASE-MFS-22787-1] c 15 N77-10113
- Rim inertial measuring system  
[NASA-CASE-LAR-12052-1] c 18 N81-29152

**SATELLITE CONTROL**

- Stabilization of gravity oriented satellites Patent  
[NASA-CASE-XAC-01591] c 31 N71-17729

**SATELLITE DESIGN**

- Inflation system for balloon type satellites Patent  
[NASA-CASE-XGS-03351] c 31 N71-16081

**SATELLITE INSTRUMENTS**

- Reaction wheel scanner Patent  
[NASA-CASE-XGS-02629] c 14 N71-21082

**SATELLITE NETWORKS**

- Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149

**SATELLITE ORBITS**

- Apparatus for changing the orientation and velocity of a spinning body traversing a path Patent  
[NASA-CASE-HQN-00936] c 31 N71-29050

**SATELLITE ORIENTATION**

- Method and apparatus for determining satellite orientation utilizing spatial energy sources Patent  
[NASA-CASE-XGS-00466] c 21 N70-34297
- Cartwheel satellite synchronization system Patent  
[NASA-CASE-XGS-05579] c 31 N71-15676
- Apparatus for changing the orientation and velocity of a spinning body traversing a path Patent  
[NASA-CASE-HQN-00936] c 31 N71-29050
- Analog spatial maneuver computer  
[NASA-CASE-GSC-10880-1] c 08 N72-11172

**SATELLITE PERTURBATION**

- Method and means for damping nutation in a satellite Patent  
[NASA-CASE-XMF-00442] c 31 N71-10747

**SATELLITE POWER TRANSMISSION (TO EARTH)**

- Microwave power transmission beam safety system  
[NASA-CASE-NPO-14224-1] c 33 N80-18287

**SATELLITE ROTATION**

- Optical spin compensator  
[NASA-CASE-XGS-02401] c 14 N69-27485
- Stretch de-spin mechanism Patent  
[NASA-CASE-XGS-00619] c 30 N70-40016
- Apparatus for changing the orientation and velocity of a spinning body traversing a path Patent  
[NASA-CASE-HQN-00936] c 31 N71-29050

**SATELLITE TELEVISION**

- Adaptive system and method for signal generation Patent  
[NASA-CASE-GSC-11367] c 10 N71-26374

**SATELLITE TRACKING**

- Tracking receiver Patent  
[NASA-CASE-XGS-08679] c 10 N71-21473

- Simultaneous acquisition of tracking data from two stations  
[NASA-CASE-NPO-13292-1] c 32 N75-15854
- Switchable beamwidth monopulse method and system  
[NASA-CASE-GSC-11924-1] c 33 N76-27472

**SATELLITE TRANSMISSION**

- Asynchronous, multiplexing, single line transmission and recovery data system — for satellite use  
[NASA-CASE-NPO-13321-1] c 32 N75-26195

**SATELLITE-BORNE PHOTOGRAPHY**

- Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly — for use with cameras mounted in satellites  
[NASA-CASE-GSC-11560-1] c 33 N74-20861
- Scanner — photography from a spin stabilized synchronous satellite  
[NASA-CASE-GSC-12032-2] c 43 N82-13465

**SATURABLE REACTORS**

- Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418

**SATURATION**

- Method of detecting impending saturation of magnetic cores  
[NASA-CASE-ERC-10089] c 23 N72-17747

**SAWTOOTH WAVEFORMS**

- Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent  
[NASA-CASE-XMS-01315] c 09 N70-41675

**SCANNERS**

- Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460
- Electronic background suppression method and apparatus for a field scanning sensor  
[NASA-CASE-XGS-05211] c 07 N69-39980
- Method and means for an improved electron beam scanning system Patent  
[NASA-CASE-ERC-10552] c 09 N71-12539
- Reaction wheel scanner Patent  
[NASA-CASE-XGS-02629] c 14 N71-21082
- Electronic scanning of 2-channel monopulse patterns Patent  
[NASA-CASE-GSC-10299-1] c 09 N71-24804
- Method and apparatus for mapping the sensitivity of the face of a photodetector specifically a PMT  
[NASA-CASE-LAR-10320-1] c 09 N72-23172
- Ultrasonic scanner for radial and flat panels  
[NASA-CASE-MFS-20335-1] c 35 N74-10415
- Apparatus for scanning the surface of a cylindrical body  
[NASA-CASE-NPO-11861-1] c 36 N74-20009
- Fast scan control for deflection type mass spectrometers  
[NASA-CASE-LAR-11428-1] c 35 N74-34857
- Electronically scanned pressure sensor module with in situ calibration capability  
[NASA-CASE-LAR-12230-1] c 35 N79-14347
- Scannable beam forming interferometer antenna array system  
[NASA-CASE-GSC-12365-1] c 32 N80-28578
- Scanner — photography from a spin stabilized synchronous satellite  
[NASA-CASE-GSC-12032-2] c 43 N82-13465
- Optical crystal temperature gauge with fiber optic connections  
[NASA-CASE-MSC-18627-1] c 74 N82-30071
- Integrated optics in an electrically scanned imaging Fourier transform spectrometer  
[NASA-CASE-NPO-15844-1] c 74 N83-12992
- Scanning seismic intrusion detection method and apparatus — monitoring unwanted subterranean entry and departure  
[NASA-CASE-ARC-11317-1] c 35 N83-34272
- Self-correcting electronically scanned pressure sensor  
[NASA-CASE-LAR-12686-1] c 35 N84-14491
- Two-dimensional scanner apparatus — flaw detector in small flat plates  
[NASA-CASE-MFS-25687-1] c 35 N84-22928
- Electronic scanning pressure measuring system and transducer package  
[NASA-CASE-ARC-11361-1] c 35 N84-22934
- Programmable scan/read circuitry for charge coupled device imaging detectors — spacecraft attitude control and star trackers  
[NASA-CASE-NPO-15345-1] c 74 N84-23247

**SCANNING**

- Television signal scan rate conversion system Patent  
[NASA-CASE-XMS-07168] c 07 N71-11300
- Method of erasing target material of a vidicon tube or the like Patent  
[NASA-CASE-XNP-06028] c 09 N71-23189
- Position determination systems — using orbital antenna scan of celestial bodies  
[NASA-CASE-MSC-12593-1] c 17 N76-21250

- Magnetometer with a miniature transducer and automatic scanning  
[NASA-CASE-LAR-11617-2] c 35 N78-32397
- System and method for character recognition  
[NASA-CASE-NPO-11337-1] c 74 N81-19896

**SCATTERING CROSS SECTIONS**

- Method and means for helium/hydrogen ratio measurement by alpha scattering  
[NASA-CASE-NPO-14079-1] c 25 N80-20334

**SCENE ANALYSIS**

- Simulator scene display evaluation  
[NASA-CASE-ARC-11504-1] c 09 N84-16221

**SCHLIEREN PHOTOGRAPHY**

- System and method for obtaining wide screen Schlieren photographs  
[NASA-CASE-NPO-14174-1] c 74 N79-20856

**SCHMIDT CAMERAS**

- Cooled echelle grating spectrometer — for space telescope applications  
[NASA-CASE-NPO-14372-1] c 35 N80-26635

**SCHMIDT TELESCOPES**

- Dual aperture multispectral Schmidt objective  
[NASA-CASE-GSC-12756-1] c 74 N84-23248

**SCHOOLS**

- Silent emergency alarm system for schools and the like  
[NASA-CASE-NPO-11307-1] c 10 N73-30205

**SCHOTTKY DIODES**

- High voltage, high current Schottky barrier solar cell  
[NASA-CASE-NPO-13482-1] c 44 N78-13526
- Solar cells having integral collector grids  
[NASA-CASE-LEW-12819-1] c 44 N79-11467
- Back wall solar cell  
[NASA-CASE-LEW-12236-2] c 44 N79-14528
- Schottky barrier solar cell  
[NASA-CASE-NPO-13689-2] c 44 N81-29525
- Method of fabricating Schottky Barrier solar cell  
[NASA-CASE-NPO-13689-4] c 44 N82-28780
- Submillimeter wave Schottky barrier diode with low series resistance and low noise  
[NASA-CASE-NPO-15935-1] c 33 N83-12334
- Thin wire pointing method  
[NASA-CASE-NPO-15789-1] c 31 N83-19947
- GaAs Schottky barrier photo-responsive device and method of fabrication — photovoltaic cells  
[NASA-CASE-GSC-12816-1] c 76 N83-30268
- Epitaxial thinning process  
[NASA-CASE-NPO-15786-1] c 76 N84-35112

**SCOOPS**

- Aeroflexible structures  
[NASA-CASE-XLA-06095] c 01 N69-39981

**SCORING**

- Scriber for silicon wafers  
[NASA-CASE-NPO-15539-1] c 37 N82-11469

**SCRAMBLING (COMMUNICATION)**

- Random digital encryption secure communication system  
[NASA-CASE-MSC-16462-1] c 32 N82-31583

**SCREWS**

- Electromechanical control actuator system Patent  
[NASA-CASE-ERC-10022] c 15 N71-26635
- Adjustable support  
[NASA-CASE-NPO-10721] c 15 N72-27484
- Low noise lead screw positioner  
[NASA-CASE-NPO-15617-1] c 35 N82-33681

**SCRUBBERS**

- High pressure gas filter system Patent  
[NASA-CASE-MFS-12806] c 14 N71-17588

**SEA ICE**

- A technique for breaking ice in the path of a ship  
[NASA-CASE-LAR-10815-1] c 16 N72-22520

**SEA STATES**

- Oceanic wave measurement system  
[NASA-CASE-MFS-23862-1] c 48 N80-18667

**SEALERS**

- Pressure garment joint Patent  
[NASA-CASE-XMS-09636] c 05 N71-12344
- Sealing device for an electrochemical cell Patent  
[NASA-CASE-XGS-02630] c 03 N71-22974

- Bonded elastomeric seal for electrochemical cells Patent  
[NASA-CASE-XGS-02631] c 03 N71-23006

- Self-lubricating fluoride metal composite materials Patent  
[NASA-CASE-XLE-08511] c 18 N71-23710

- Polyimides of ether-linked aryl tetracarboxylic dianhydrides  
[NASA-CASE-MFS-22355-1] c 23 N76-15268

- High performance filletting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490

- High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523

**SEALING**

- Foil seal  
[NASA-CASE-XLE-05130] c 15 N69-21362



Sealed battery gas manifold construction Patent  
[NASA-CASE-XNP-03378] c 03 N71-11051  
Sealing device for an electrochemical cell Patent  
[NASA-CASE-XGS-02630] c 03 N71-22974  
Sealing member and combination thereof and method of producing said sealing member Patent  
[NASA-CASE-XMS-01625] c 15 N71-23022  
Evacuation port seal Patent  
[NASA-CASE-XMF-03290] c 15 N71-23256  
Valve seat  
[NASA-CASE-NPO-10606] c 15 N72-25451  
Ampoule sealing apparatus and process --- for housing a semiconductor growth charge under vacuum  
[NASA-CASE-LAR-12847-1] c 33 N83-16633

**SEALS (STOPPERS)**

Spacecraft battery seals  
[NASA-CASE-XGS-03864] c 15 N69-24320  
Flexible seal for valves Patent  
[NASA-CASE-XLE-00101] c 15 N70-33376  
Shrink-fit gas valve Patent  
[NASA-CASE-XGS-00587] c 15 N70-35087  
Thin-walled pressure vessel Patent  
[NASA-CASE-XLE-04677] c 15 N71-10577  
Foil seal Patent  
[NASA-CASE-XLE-05130-2] c 15 N71-19570  
Storage container for electronic devices Patent  
[NASA-CASE-MFS-20075] c 09 N71-26133  
Rotating shaft seal Patent  
[NASA-CASE-XNP-02862-1] c 15 N71-26294  
Spiral groove seal --- for rotating shaft  
[NASA-CASE-XLE-10326-4] c 37 N74-15125  
Glass-to-metal seals comprising relatively high expansion metals  
[NASA-CASE-LEW-10698-1] c 37 N74-21063  
High speed, self-acting shaft seal --- for use in turbine engines  
[NASA-CASE-LEW-11274-1] c 37 N75-21631  
Method of forming shrink-fit compression seal  
[NASA-CASE-LAR-11563-1] c 37 N77-23482  
Counter pumping debris excluder and separator --- gas turbine shaft seals  
[NASA-CASE-LEW-11855-1] c 07 N78-25090  
Composite seal for turbomachinery --- backings for turbine engine shrouds  
[NASA-CASE-LEW-12131-1] c 37 N79-18318  
Retractable environmental seal  
[NASA-CASE-MFS-23646-1] c 37 N79-22474  
Shaft seal assembly for high speed and high pressure applications  
[NASA-CASE-LEW-11873-1] c 37 N79-22475  
Fluid pressure balanced seal  
[NASA-CASE-XGS-01286-1] c 37 N79-33469  
Gas path seal  
[NASA-CASE-NPO-12131-3] c 37 N80-18400  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-2] c 37 N80-26658  
Circumferential shaft seal  
[NASA-CASE-LEW-12119-1] c 37 N80-28711  
Thermal barrier pressure seal --- shielding junctions between spacecraft control surfaces and structures  
[NASA-CASE-MSC-18134-1] c 37 N81-15363  
Modified face seal for positive film stiffness  
[NASA-CASE-LEW-12989-1] c 37 N82-12442  
Surface conforming thermal/pressure seal --- tail assemblies of space shuttle orbiters  
[NASA-CASE-MSC-18422-1] c 37 N82-16408  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-19540  
Continuous self-locking spiral wound seal --- for maintaining pressure between chambers in cryogenic wind tunnels  
[NASA-CASE-LAR-12315-1] c 37 N82-24490  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-2] c 37 N82-26674  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453  
Damping seal for turbomachinery  
[NASA-CASE-MFS-25842-1] c 37 N83-26080  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450  
Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744  
Method of fabricating an abradable gas path seal  
[NASA-CASE-LEW-13269-2] c 37 N84-22957  
Linear motion valve  
[NASA-CASE-MSC-20148-1] c 37 N84-32823

**SEAMS (JOINTS)**  
Traveling sealer for contoured table Patent  
[NASA-CASE-XLA-01494] c 15 N71-24164  
Omnidirectional joint Patent  
[NASA-CASE-XMS-09635] c 05 N71-24623

Method of making pressure tight seal for super alloy  
[NASA-CASE-LAR-10170-1] c 37 N74-11301

**SEAT BELTS**

Shoulder harness and lap belt restraint system  
[NASA-CASE-ARC-10519-2] c 05 N75-25915

**SEATS**

Seat cushion to provide realistic acceleration cues to aircraft simulator pilot  
[NASA-CASE-LAR-12149-2] c 09 N79-31228  
Variable response load limiting device --- for aircraft seats  
[NASA-CASE-LAR-12801-1] c 37 N82-20544  
Fire blocking systems for aircraft seat cushions  
[NASA-CASE-ARC-11423-1] c 03 N84-33394

**SECTORS**

Journal Bearings  
[NASA-CASE-LEW-11076-2] c 37 N74-32921

**SECURITY**

Passive intrusion detection system  
[NASA-CASE-NPO-13804-1] c 33 N80-23559  
Portable appliance security apparatus  
[NASA-CASE-GSC-12399-1] c 33 N81-25299  
Random digital encryption secure communication system  
[NASA-CASE-MSC-16462-1] c 32 N82-31583  
Scanning seismic intrusion detection method and apparatus --- monitoring unwanted subterranean entry and departure  
[NASA-CASE-ARC-11317-1] c 35 N83-34272

**SEGMENTS**

Method and apparatus for making curved reflectors  
[NASA-CASE-XLE-08917] c 15 N71-15597

**SEISMIC WAVES**

Seismic displacement transducer Patent  
[NASA-CASE-XMF-00479] c 14 N70-34794  
Seismic vibration source  
[NASA-CASE-NPO-14112-1] c 46 N79-22679  
Underwater seismic source --- for petroleum exploration  
[NASA-CASE-NPO-14255-1] c 46 N79-23555

**SEISMOGRAPHS**

Scanning seismic intrusion detection method and apparatus --- monitoring unwanted subterranean entry and departure  
[NASA-CASE-ARC-11317-1] c 35 N83-34272

**SELECTORS**

Molecular beam velocity selector Patent  
[NASA-CASE-XLE-01533] c 11 N71-10777  
Peak polarity selector Patent  
[NASA-CASE-FRC-10010] c 10 N71-24862

**SELF ALIGNMENT**

Electro-optical alignment control system Patent  
[NASA-CASE-XMF-00908] c 14 N70-40238  
Electrical self-aligning connector --- orbital servicer vehicles  
[NASA-CASE-MFS-25211-2] c 33 N84-14423

**SELF ERECTING DEVICES**

Flexible foam erectable space structures Patent  
[NASA-CASE-XLA-00686] c 31 N70-34135  
Erectable modular space station Patent  
[NASA-CASE-XLA-00678] c 31 N70-34296  
Manned space station Patent  
[NASA-CASE-XLA-00258] c 31 N70-38676  
Foldable conduit Patent  
[NASA-CASE-XLE-00620] c 32 N70-41579  
Self-erecting reflector Patent  
[NASA-CASE-XGS-09190] c 31 N71-16102  
Collapsible reflector Patent  
[NASA-CASE-XMS-03454] c 09 N71-20658  
Foldable self-erecting joint --- space erectable structures  
[NASA-CASE-MSC-20635-1] c 18 N84-32424

**SELF FOCUSING**

Focal axis resolver for offset reflector antennas  
[NASA-CASE-GSC-12630-1] c 33 N83-36355

**SELF LUBRICATING MATERIALS**

Self-lubricating fluoride metal composite materials Patent  
[NASA-CASE-XLE-08511] c 18 N71-23710  
Self-lubricating gears and other mechanical parts Patent  
[NASA-CASE-MFS-14971] c 15 N71-24984  
Method of making bearing material  
[NASA-CASE-LEW-11930-3] c 24 N80-33482

**SELF LUBRICATION**

Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications  
[NASA-CASE-LEW-11930-4] c 24 N79-17916

**SELF MANEUVERING UNITS**

Hand-held self-maneuvering unit Patent  
[NASA-CASE-XMS-05304] c 05 N71-12336  
Personal propulsion unit Patent  
[NASA-CASE-MFS-20130] c 28 N71-27585

**SELF PROPAGATION**

Optical frequency waveguide Patent  
[NASA-CASE-HQN-10541-1] c 07 N71-26291

**SELF SEALING**

Modification of one man life raft  
[NASA-CASE-LAR-10241-1] c 54 N74-14845  
Self-stabilizing radial face seal  
[NASA-CASE-LEW-12991-1] c 37 N81-24442  
Oxidizing seal for a turbine tip gas path  
[NASA-CASE-LEW-14053-1] c 07 N84-22563

**SEMICONDUCTOR DEVICES**

Test fixture for pellet-like electrical elements  
[NASA-CASE-XNP-06032] c 09 N69-21926  
Semiconductor p-n junction stress and strain sensor  
[NASA-CASE-XLA-04980] c 09 N69-27422  
A method for selective gold diffusion of monolithic silicon devices and/or circuits Patent application  
[NASA-CASE-ERC-10072] c 09 N70-11148  
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent  
[NASA-CASE-XGS-00381] c 09 N70-34819  
Method of forming thin window drifted silicon charged particle detector Patent  
[NASA-CASE-XLE-00808] c 24 N71-10560  
Method of making a silicon semiconductor device Patent  
[NASA-CASE-XLE-02792] c 26 N71-10607  
Apparatus and method for separating a semiconductor wafer Patent  
[NASA-CASE-ERC-10138] c 26 N71-14354  
Voltage tunable Gunn-type microwave generator Patent  
[NASA-CASE-XER-07894] c 09 N71-18721  
Method and device for determining battery state of charge Patent  
[NASA-CASE-NPO-10194] c 03 N71-20407  
Multialarm summary alarm Patent  
[NASA-CASE-XLE-03061-1] c 10 N71-24798  
Method of temperature compensating semiconductor strain gages Patent  
[NASA-CASE-XLA-04555-1] c 14 N71-25892  
Pneumatic oscillator Patent  
[NASA-CASE-LEW-10345-1] c 10 N71-25899  
Method and apparatus for detecting gross leaks Patent  
[NASA-CASE-ERC-10033] c 14 N71-26672  
Transistor drive regulator Patent  
[NASA-CASE-LEW-10233] c 10 N71-27126  
Orifice gross leak tester Patent  
[NASA-CASE-ERC-10150] c 14 N71-28992  
Method of manufacturing semiconductor devices using refractory dielectrics  
[NASA-CASE-XER-08476-1] c 26 N72-17820  
Fabrication of single crystal film semiconductor devices  
[NASA-CASE-ERC-10222] c 09 N72-22199  
Electrical insulating layer process  
[NASA-CASE-LEW-10489-1] c 15 N72-25447  
Gunn-type solid state devices  
[NASA-CASE-XER-07895] c 26 N72-25679  
Semiconductor transducer device  
[NASA-CASE-ERC-10087-2] c 14 N72-31446  
Hermetically sealed semiconductor  
[NASA-CASE-GSC-10791-1] c 15 N73-14469  
Process for fabricating SiC semiconductor devices  
[NASA-CASE-LEW-12094-1] c 76 N76-25049  
Semiconductor projectile impact detector  
[NASA-CASE-MFS-23008-1] c 35 N78-18390  
Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction  
[NASA-CASE-MFS-23315-1] c 76 N78-24950  
Apparatus for measuring semiconductor device resistance  
[NASA-CASE-NPO-14424-1] c 33 N80-32650  
Electrical power generating system --- for windpowered generation  
[NASA-CASE-MFS-24368-3] c 33 N81-22280  
Screen printed interdigitated back contact solar cell  
[NASA-CASE-LEW-13414-1] c 44 N83-20374  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-2] c 33 N83-24763  
Inelastic tunnel diodes  
[NASA-CASE-LEW-13833-1] c 33 N83-25983  
Method for growing low defect, high purity crystalline layers --- photovoltaic cells  
[NASA-CASE-NPO-15813-1] c 76 N83-30269  
Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765  
Epitaxial thinning process  
[NASA-CASE-NPO-15786-1] c 76 N84-35112  
Process and apparatus for growing a crystal ribbon  
[NASA-CASE-NPO-15629-1] c 76 N84-35113

## SEMICONDUCTOR JUNCTIONS

- Simple method of making photovoltaic junctions Patent  
[NASA-CASE-XNP-01960] c 09 N71-23027
- Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334
- Semiconductor surface protection material  
[NASA-CASE-ERC-10339-1] c 18 N73-30532
- JFET oscillator  
[NASA-CASE-GSC-12555-1] c 33 N80-26601
- High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31764

## SEMICONDUCTORS (MATERIALS)

- Depositing semiconductor films utilizing a thermal gradient  
[NASA-CASE-XKS-04614] c 15 N69-21460
- System for improving signal-to-noise ratio of a communication signal Patent Application  
[NASA-CASE-MS-C-12259-1] c 07 N70-12616
- High efficiency multivibrator Patent  
[NASA-CASE-XAC-00942] c 10 N71-16042
- Method of making impurity-type semiconductor electrical contacts Patent  
[NASA-CASE-XMF-01016] c 26 N71-17818
- Method of electrolytically binding a layer of semiconductors together Patent  
[NASA-CASE-XNP-01959] c 26 N71-23043
- Gd or Sm doped silicon semiconductor composition Patent  
[NASA-CASE-XLE-10715] c 26 N71-23292
- Infrared detectors  
[NASA-CASE-LAR-10728-1] c 14 N73-12445
- Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251
- Vapor deposition apparatus --- semiconductors and gallium arsenides  
[NASA-CASE-HQN-10462] c 25 N75-29192
- Application of semiconductor diffusants to solar cells by screen printing  
[NASA-CASE-LEW-12775-1] c 44 N79-11468
- Method for the preparation of inorganic single crystal and polycrystalline electronic materials  
[NASA-CASE-XLE-02545-1] c 76 N79-21910
- Voltage feed through apparatus having reduced partial discharge  
[NASA-CASE-GSC-12347-1] c 33 N80-18286
- Method for determining the point of zero zeta potential of semiconductor materials  
[NASA-CASE-LAR-12893-1] c 33 N82-26573
- Method of making macrocrystalline or single crystal semiconductive material and products produced thereby --- epitaxial substrates using low melting materials for photovoltaic cells  
[NASA-CASE-NPO-15904-1] c 76 N83-21993
- Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019
- A new solar cell design for improved open circuit voltage and high efficiency  
[NASA-CASE-NPO-16126-1] c 44 N84-32911
- Epitaxial thinning process  
[NASA-CASE-NPO-15786-1] c 76 N84-35112

## SENSITIVITY

- Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11256

## SENSITOMETRY

- Condition sensor system and method  
[NASA-CASE-MS-C-14805-1] c 54 N78-32720

## SENSORS

- Bonding method in the manufacture of continuous regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260
- Medical subject monitoring systems --- multichannel monitoring systems  
[NASA-CASE-MS-C-14180-1] c 52 N76-14757

## SENSORY PERCEPTION

- Tactile sensing means for prosthetic limbs  
[NASA-CASE-MFS-16570-1] c 05 N73-32013

## SEPARATED FLOW

- Thrust vector control apparatus Patent  
[NASA-CASE-XLE-00208] c 28 N70-34294
- Double hinged flap Patent  
[NASA-CASE-XLA-01290] c 02 N70-42016
- Mixture separation cell Patent  
[NASA-CASE-XMS-02952] c 18 N71-20742
- Flow separation detector  
[NASA-CASE-ARC-11046-1] c 35 N78-14364

## SEPARATORS

- Condenser - Separator  
[NASA-CASE-XLA-08645] c 15 N69-21465
- Umbilical separator for rockets Patent  
[NASA-CASE-XNP-00425] c 11 N70-38202
- Liquid-gas separation system Patent  
[NASA-CASE-XMS-01624] c 15 N70-40062

- Zero gravity separator Patent  
[NASA-CASE-XLE-00586] c 15 N71-15968
- Separator Patent  
[NASA-CASE-XLA-00415] c 15 N71-16079
- Water separating system Patent  
[NASA-CASE-XMS-13052] c 14 N71-20427
- Vapor liquid separator Patent  
[NASA-CASE-XMF-04042] c 15 N71-23023
- Air removal device  
[NASA-CASE-XLA-8914] c 15 N73-12492
- Centrifugal lyophobic separator  
[NASA-CASE-LAR-10194-1] c 34 N74-30608
- Fluid control apparatus and method  
[NASA-CASE-LAR-11110-1] c 34 N75-26282
- Method and apparatus for fluffing, separating, and cleaning fibers  
[NASA-CASE-LAR-11224-1] c 37 N76-18456
- Gels as battery separators for soluble electrode cells  
[NASA-CASE-LEW-12364-1] c 44 N77-22606
- Low gravity phase separator  
[NASA-CASE-MS-C-14773-1] c 35 N78-12390
- Automatic multiple-sample applicator and electrophoresis apparatus  
[NASA-CASE-ARC-10991-1] c 25 N78-14104
- Counter pumping debris excluder and separator --- gas turbine shaft seals  
[NASA-CASE-LEW-11855-1] c 07 N78-25090
- Inorganic-organic separators for alkaline batteries  
[NASA-CASE-LEW-12649-1] c 44 N78-25530
- Formulated plastic separators for soluble electrode cells --- rubber-ion transport membranes  
[NASA-CASE-LEW-12358-1] c 44 N79-17313
- Water separator  
[NASA-CASE-XMS-01295-1] c 37 N79-21345
- In situ self cross-linking of polyvinyl alcohol battery separators  
[NASA-CASE-LEW-12972-1] c 44 N79-25481
- Partial interlaminar separation system for composites  
[NASA-CASE-LAR-12065-1] c 24 N81-14000
- Polyvinyl alcohol battery separator containing inert filler --- alkaline batteries  
[NASA-CASE-LEW-13556-1] c 44 N81-27615
- Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531
- Method of making formulated plastic separators for soluble electrode cells  
[NASA-CASE-LEW-12358-2] c 25 N82-21268
- Process of treating cellulosic membrane and alkaline with membrane separator  
[NASA-CASE-GSC-10019-1] c 44 N82-24641
- Separator for alkaline batteries and method of making same  
[NASA-CASE-GSC-10350-1] c 44 N82-24642
- Separator for alkaline electric cells and method of making  
[NASA-CASE-GSC-10017-1] c 44 N82-24643
- Separator for alkaline electric batteries and method of making  
[NASA-CASE-GSC-10018-1] c 44 N82-24644
- Alkaline electrochemical cells and method of making  
[NASA-CASE-GSC-10349-1] c 44 N82-24645
- Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112
- Aqueous alkali metal hydroxide insoluble cellulose ether membrane  
[NASA-CASE-XGS-05584-1] c 25 N82-29370
- Advanced inorganic separators for alkaline batteries  
[NASA-CASE-LEW-13171-1] c 44 N82-29708
- Electrophoresis device  
[NASA-CASE-MFS-25426-1] c 25 N83-10126
- Static continuous electrophoresis device  
[NASA-CASE-MFS-25306-1] c 25 N83-13187
- Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-2] c 44 N83-29805
- Advanced inorganic separators for alkaline batteries and method of making the same  
[NASA-CASE-LEW-13171-2] c 44 N83-32176
- Oxygen recombination in individual pressure vessel nickel-hydrogen batteries  
[NASA-CASE-LEW-13822-1] c 33 N84-29084

## SEQUENCING

- Synchronous counter Patent  
[NASA-CASE-XGS-02440] c 08 N71-19432
- Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
[NASA-CASE-XGS-04224] c 10 N71-26418
- Digital function generator  
[NASA-CASE-NPO-11104] c 08 N72-22165
- MOD 2 sequential function generator for multibit binary sequence  
[NASA-CASE-NPO-10636] c 08 N72-25210

- Pseudonoise sequence generators with three tap linear feedback shift registers  
[NASA-CASE-NPO-11406] c 08 N73-12175
- Mechanical sequencer  
[NASA-CASE-MS-C-19536-1] c 37 N77-22482
- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-15670-1] c 33 N82-33634

## SEQUENTIAL ANALYSIS

- Binary coded sequential acquisition ranging system  
[NASA-CASE-NPO-11194] c 08 N72-25209
- Event sequence detector  
[NASA-CASE-NPO-11703-1] c 10 N73-32144

## SEQUENTIAL COMPUTERS

- Digital data reformatter/deserializer  
[NASA-CASE-NPO-13676-1] c 60 N79-20751

## SEQUENTIAL CONTROL

- Linear three-tap feedback shift register Patent  
[NASA-CASE-NPO-10351] c 08 N71-12503
- Binary sequence detector Patent  
[NASA-CASE-XNP-05415] c 08 N71-12505
- Sequencing device utilizing planetary gear set  
[NASA-CASE-MS-C-19514-1] c 37 N79-20377
- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884
- Nanosequencer digital logic controller  
[NASA-CASE-NPO-16116-1] c 60 N84-25306

## SERUMS

- Reduction of blood serum cholesterol  
[NASA-CASE-NPO-12119-1] c 52 N75-15270

## SERVICE LIFE

- Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-10503-1] c 09 N72-21248
- Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574
- Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560

## SERVOAMPLIFIERS

- Pneumatic amplifier Patent  
[NASA-CASE-MS-C-12121-1] c 15 N71-27147

## SERVOCONTROL

- Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460
- Proportional controller Patent  
[NASA-CASE-XAC-03392] c 03 N70-41954
- Light intensity modulator controller Patent  
[NASA-CASE-XMS-04300] c 09 N71-19479
- Strain coupled servo control system Patent  
[NASA-CASE-XLA-08530] c 32 N71-25360
- Energy limiter for hydraulic actuators Patent  
[NASA-CASE-ARC-10131-1] c 15 N71-27754
- Digital servo controller --- for rotating antenna shaft  
[NASA-CASE-KSC-10769-1] c 33 N74-29556
- Digital servo control of random sound test excitation --- in reverberant acoustic chamber  
[NASA-CASE-NPO-11623-1] c 71 N74-31148
- Phase-locked servo system --- for synchronizing the rotation of slip ring assembly  
[NASA-CASE-MFS-22073-1] c 33 N75-13139
- Servo-controlled intravitral microscope system  
[NASA-CASE-NPO-13214-1] c 35 N75-25123
- Autonomous navigation system --- gyroscopic pendulum for air navigation  
[NASA-CASE-ARC-11257-1] c 04 N81-21047
- System and method for moving a probe to follow movements of tissue  
[NASA-CASE-NPO-15197-1] c 52 N83-25346
- Memory metal actuator --- for use in electromechanical servocontrol systems  
[NASA-CASE-NPO-15960-1] c 37 N83-36485
- Control system for an induction motor with energy recovery  
[NASA-CASE-MFS-25477-1] c 33 N84-14424
- Maser cavity servo-tuning system  
[NASA-CASE-NPO-15890-1] c 36 N84-15536

## SERVOMECHANISMS

- Interferometer servo system Patent  
[NASA-CASE-NPO-10300] c 14 N71-17662
- Line following servosystem Patent  
[NASA-CASE-XAC-00001] c 15 N71-28952
- A dc servosystem including an ac motor Patent  
[NASA-CASE-NPO-10700] c 07 N71-33613
- Ball screw linear actuator  
[NASA-CASE-NPO-11222] c 15 N72-25456
- Rotary actuator  
[NASA-CASE-NPO-10680] c 31 N73-14855
- Hydraulic drain means for servo-systems  
[NASA-CASE-NPO-10316-1] c 37 N77-22479
- Actuator mechanism  
[NASA-CASE-GSC-11883-2] c 37 N78-31426
- Apparatus for providing a servo drive signal in a high-speed stepping interferometer  
[NASA-CASE-NPO-13569-2] c 35 N79-14348

Automated syringe sampler — remote sampling of air and water  
[NASA-CASE-LAR-12308-1] c 35 N81-29407  
Electrical servo actuator bracket — fuel control valves on jet engines  
[NASA-CASE-FRC-11044-1] c 37 N81-33483  
Hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands  
[NASA-CASE-LAR-12412-1] c 08 N82-24205  
Servomechanism for Doppler shift compensation in optical correlator for synthetic aperture radar  
[NASA-CASE-NPO-14998-1] c 32 N83-18975

**SERVOMOTORS**

Automatic closed circuit television arc guidance control Patent  
[NASA-CASE-MFS-13046] c 07 N71-19433  
Transistor servo system including a unique differential amplifier circuit Patent  
[NASA-CASE-XMF-05195] c 10 N71-24861  
Cyclically operable optical shutter  
[NASA-CASE-NPO-10758] c 14 N73-14427  
Rotary actuator  
[NASA-CASE-NPO-10680] c 31 N73-14855  
Velocity servo for continuous scan Fourier interference spectrometer  
[NASA-CASE-NPO-14093-1] c 35 N80-20563

**SEWAGE TREATMENT**

Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634  
Method for treating wastewater using microorganisms and vascular aquatic plants  
[NASA-CASE-NSTL-10] c 45 N84-12654

**SHAFTS (MACHINE ELEMENTS)**

Fatigue-resistant shear pin  
[NASA-CASE-XLA-09122] c 15 N69-27505  
Elastic universal joint Patent  
[NASA-CASE-XNP-00416] c 15 N70-36947  
Apparatus for absorbing and measuring power Patent  
[NASA-CASE-XLE-00720] c 14 N70-40201  
Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073  
Ratchet mechanism Patent  
[NASA-CASE-MFS-12805] c 15 N71-17805  
Frictionless universal joint Patent  
[NASA-CASE-NPO-10646] c 15 N71-28467  
Spiral groove seal  
[NASA-CASE-XLE-10326-2] c 15 N72-29488  
High speed hybrid bearing comprising a fluid bearing and a rolling bearing connected in series  
[NASA-CASE-LEW-11152-1] c 15 N73-32359  
Spiral groove seal — for hydraulic rotating shaft  
[NASA-CASE-LEW-10326-3] c 37 N74-10474  
Hole cutter — drill bits and rotating shaft  
[NASA-CASE-MFS-22649-1] c 37 N75-25186  
Twin-capacitive shaft angle encoder with analog output signal  
[NASA-CASE-ARC-10897-1] c 33 N77-31404  
Counter pumping debris excluder and separator — gas turbine shaft seals  
[NASA-CASE-LEW-11855-1] c 07 N78-25090  
Sequencing device utilizing planetary gear set  
[NASA-CASE-MSC-19514-1] c 37 N79-20377  
Shaft seal assembly for high speed and high pressure applications  
[NASA-CASE-LEW-11873-1] c 37 N79-22475  
Speed control device for a heavy duty shaft — solar sails for spacecraft propulsion  
[NASA-CASE-NPO-14170-1] c 37 N81-15364  
Hot gas engine with dual crankshafts  
[NASA-CASE-NPO-14221-1] c 37 N81-25370  
Circumferential shaft seal  
[NASA-CASE-LEW-12119-2] c 37 N81-26447  
Hermetic seal for a shaft  
[NASA-CASE-NPO-15115-1] c 37 N82-24493  
Portable 90 deg proof loading device  
[NASA-CASE-MSC-20250-1] c 37 N83-29707

**SHAPE MEMORY ALLOYS**

In-situ laser retorting of oil shale  
[NASA-CASE-LEW-12217-1] c 43 N78-14452  
Oil shale extraction using super-critical extraction  
[NASA-CASE-NPO-15656-1] c 43 N84-23012  
Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912

**SHALES**

Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443  
Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423  
Coal-shale interface detector  
[NASA-CASE-MFS-23720-1] c 43 N80-23711  
Oil shale extraction using super-critical extraction  
[NASA-CASE-NPO-15656-1] c 43 N84-23012  
Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912

**SHAPE MEMORY ALLOYS**

Rotary stepping device with memory metal actuator  
[NASA-CASE-NPO-15482-1] c 37 N83-36484  
Memory metal actuator — for use in electromechanical servocontrol systems  
[NASA-CASE-NPO-15960-1] c 37 N83-36485

**SHAPED CHARGES**

Coupling for linear shaped charge Patent  
[NASA-CASE-XLA-00189] c 33 N70-36846  
Lateral displacement system for separated rocket stages Patent  
[NASA-CASE-XLA-04804] c 31 N71-23008

**SHAPERS**

Mandrel for shaping solid propellant rocket fuel into a motor casing Patent  
[NASA-CASE-XLA-00304] c 27 N70-34783  
Tube dimpling tool Patent  
[NASA-CASE-XMS-06876] c 15 N71-21536  
Dielectric molding apparatus Patent  
[NASA-CASE-LAR-10121-1] c 15 N71-26721

**SHAPES**

Light transmitting window assembly  
[NASA-CASE-MSC-18417-1] c 74 N84-23251

**SHARKS**

Process for conditioning tanned sharkskin and articles made therefrom Patent  
[NASA-CASE-XMS-09691-1] c 18 N71-15545

**SHARPNESS**

Method of forming a sharp edge on an optical device  
[NASA-CASE-GSC-12348-1] c 74 N80-24149

**SHEAR CREEP**

Instrument for measuring torsional creep and recovery Patent  
[NASA-CASE-XLE-01481] c 14 N71-10781

**SHEAR FLOW**

Shear modulated fluid amplifier Patent  
[NASA-CASE-MFS-10412] c 12 N71-17578

**SHEAR PROPERTIES**

Parallel plate viscometer Patent  
[NASA-CASE-XNP-09462] c 14 N71-17584

**SHEAR STRESS**

Fatigue-resistant shear pin  
[NASA-CASE-XLA-09122] c 15 N69-27505  
Angular velocity and acceleration measuring apparatus  
[NASA-CASE-ERC-10292] c 14 N72-25410  
Bonded joint and method — for reducing peak shear stress in adhesive bonds  
[NASA-CASE-LAR-10900-1] c 37 N74-23064

**SHEARING**

Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900

**SHELLS (STRUCTURAL FORMS)**

Channel-type shell construction for rocket engines and the like Patent  
[NASA-CASE-XLE-00144] c 28 N70-34860  
Ring-cusp ion thruster with shell anode  
[NASA-CASE-LEW-13881-1] c 72 N83-21903

**SHIELDING**

Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937  
Shielded flat cable  
[NASA-CASE-MFS-13687-2] c 09 N72-22188  
System for the measurement of ultra-low stray light levels — determining the adequacy of large space telescope systems  
[NASA-CASE-MFS-23513-1] c 74 N79-11865

**SHIFT REGISTERS**

Binary to binary-coded-decimal converter Patent  
[NASA-CASE-XNP-00432] c 08 N70-35423  
Linear three-tap feedback shift register Patent  
[NASA-CASE-NPO-10351] c 08 N71-12503  
Counter and shift register Patent  
[NASA-CASE-XNP-01753] c 08 N71-22897  
Current steering commutator  
[NASA-CASE-NPO-10743] c 08 N72-21199  
Feedback shift register with states decomposed into cycles of equal length  
[NASA-CASE-NPO-11082] c 08 N72-22167  
MOD 2 sequential function generator for multibit binary sequence  
[NASA-CASE-NPO-10636] c 08 N72-25210  
Pseudonoise sequence generators with three tap linear feedback shift registers  
[NASA-CASE-NPO-11406] c 08 N73-12175  
A-mary linear feedback shift register with binary logic  
[NASA-CASE-NPO-11868] c 10 N73-20254  
Counting digital filters  
[NASA-CASE-NPO-11821-1] c 08 N73-26175  
Event sequence detector  
[NASA-CASE-NPO-11703-1] c 10 N73-32144  
Method and apparatus for decoding compatible convolutional codes  
[NASA-CASE-MSC-14070-1] c 32 N74-32598

Nonlinear nonsingular feedback shift registers  
[NASA-CASE-NPO-13451-1] c 33 N76-14373  
Selective data segment monitoring system — using shift registers  
[NASA-CASE-ARC-10899-1] c 60 N77-19760  
Digital data reformatter/deserializer  
[NASA-CASE-NPO-13676-1] c 60 N79-20751

**SHOCK ABSORBERS**

Pivotal shock absorbing pad assembly Patent  
[NASA-CASE-XMF-03856] c 31 N70-34159  
Frangible tube energy dissipation Patent  
[NASA-CASE-XLA-00754] c 15 N70-34850  
Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152  
Energy absorbing structure Patent Application  
[NASA-CASE-MSC-12279-1] c 15 N70-35679  
Landing pad assembly for aerospace vehicles Patent  
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- System for monitoring signal amplitude ranges  
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- Family of frequency to amplitude converters  
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- Array phasing device Patent  
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  - Television signal scan rate conversion system Patent  
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  - Difference circuit Patent  
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 [NASA-CASE-LAR-11883-1] c 09 N77-27131  
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Digital interface for bi-directional communication between a computer and a peripheral device  
 [NASA-CASE-MSC-20258-1] c 60 N84-28492  
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 Reflectometer for receiver input impedance match measurement Patent  
 [NASA-CASE-XNP-10843] c 07 N71-11267  
 Diversity receiving system with diversity phase lock Patent  
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 Decoder system Patent  
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 [NASA-CASE-MSC-12205-1] c 07 N71-27056  
 Electricity measurement devices employing liquid crystalline materials  
 [NASA-CASE-ERC-10275] c 26 N72-25680  
 Filter for third order phase locked loops  
 [NASA-CASE-NPO-11841-1] c 10 N73-27171  
 Ferrofluidic solenoid  
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 Scan converting video tape recorder  
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 System for interference signal nulling by polarization adjustment  
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 Method and apparatus for transfer function simulator for testing complex systems  
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 Elimination of frequency shift in a multiplex communication system Patent  
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 Adaptive tracking notch filter system Patent  
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 Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent  
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 Junction range finder  
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 [NASA-CASE-MSC-12462-1] c 32 N74-20809  
 Pulse code modulated signal synchronizer  
 [NASA-CASE-MSC-12494-1] c 32 N74-20810  
 Digital transmitter for data bus communications system  
 [NASA-CASE-MSC-14558-1] c 32 N75-21486  
 Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems  
 [NASA-CASE-GSC-11743-1] c 32 N75-24981  
 Method and apparatus for background signal reduction in opto-acoustic absorption measurement  
 [NASA-CASE-NPO-13683-1] c 35 N77-14411  
 Automatic transponder --- measurement of the internal delay time of a transponder  
 [NASA-CASE-GSC-12075-1] c 32 N77-31350  
 Fiber optic multiplex optical transmission system  
 [NASA-CASE-KSC-11047-1] c 74 N78-14889  
 Telephone multiline signaling using common signal pair  
 [NASA-CASE-KSC-11023-1] c 32 N79-23310  
 Precise RF timing signal distribution to remote stations --- fiber optics  
 [NASA-CASE-NPO-14749-1] c 32 N81-14186  
 Digital numerically controlled oscillator  
 [NASA-CASE-MSC-16747-1] c 33 N81-17349  
 Beam forming network  
 [NASA-CASE-NPO-15743-1] c 32 N83-19969  
 High stability amplifier  
 [NASA-CASE-GSC-12646-1] c 33 N83-34191  
 Navigation system and method  
 [NASA-CASE-GSC-12508-1] c 04 N84-22546  
 Doppler radar having phase modulation of both transmitted and reflected return signals  
 [NASA-CASE-MSC-18675-1] c 32 N84-22820  
**SIGNATURE ANALYSIS**  
 Multispectral imaging and analysis system --- using charge coupled devices and linear arrays  
 [NASA-CASE-NPO-13691-1] c 43 N79-17288  
**SILANES**  
 Elastomeric silazane polymers and process for preparing the same Patent  
 [NASA-CASE-XMF-04133] c 06 N71-20717  
 Process for preparation of dianilinosilanes Patent  
 [NASA-CASE-XMF-06409] c 06 N71-23230  
 Process for preparation of high-molecular-weight polyaryloxysilanes Patent  
 [NASA-CASE-XMF-08674] c 06 N71-28807  
 Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers  
 [NASA-CASE-ARC-10915-2] c 27 N79-18052  
 Thermal protection system  
 [NASA-CASE-MSC-18796-1] c 24 N82-26389  
 Thermal reactor --- liquid silicon production from silane gas  
 [NASA-CASE-NPO-14369-1] c 44 N83-10501  
**SILICA GEL**  
 Gels as battery separators for soluble electrode cells  
 [NASA-CASE-LEW-12384-1] c 44 N77-22606  
**SILICA GLASS**  
 Non-toxic invert analog glass compositions of high modulus  
 [NASA-CASE-HQN-10328-2] c 27 N82-29454  
 High modulus rare earth and beryllium containing silicate glass compositions --- for glass reinforcing fibers  
 [NASA-CASE-HQN-10595-1] c 27 N82-29455  
**SILICATES**  
 Alkali-metal silicate protective coating  
 [NASA-CASE-XGS-04119] c 18 N69-39979  
 Alkali-metal silicate binders and methods of manufacture  
 [NASA-CASE-GSC-12303-1] c 24 N79-31347

## SILICIDES

- Silicide coatings for refractory metals Patent  
[NASA-CASE-XLE-10910] c 18 N71-29040
- Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components  
[NASA-CASE-LEW-11179-1] c 27 N76-16229

## SILICON

- Method of forming thin window drifted silicon charged particle detector Patent  
[NASA-CASE-XLE-00808] c 24 N71-10560
- Gd or Sm doped silicon semiconductor composition Patent  
[NASA-CASE-XLE-10715] c 26 N71-23292
- Silicon solar cell with cover glass bonded to cell by metal pattern Patent  
[NASA-CASE-XLE-08569] c 03 N71-23449
- Covered silicon solar cells and method of manufacture --- with polymeric films  
[NASA-CASE-LEW-11065-2] c 44 N76-14600
- Method of controlling defect orientation in silicon crystal ribbon growth  
[NASA-CASE-NPO-13918-1] c 76 N79-11920
- Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229
- Method of producing silicon --- gas phase reactor multiple injector liquid feed system  
[NASA-CASE-NPO-14382-1] c 31 N80-18231
- System for slicing silicon wafers  
[NASA-CASE-NPO-14406-1] c 37 N80-29703
- Apparatus for use in the production of ribbon-shaped crystals from a silicon melt  
[NASA-CASE-NPO-14297-1] c 33 N81-19389
- Scriber for silicon wafers  
[NASA-CASE-NPO-15539-1] c 37 N82-11469
- Method of protecting a surface with a silicon-slurry/aluminide coating --- coatings for gas turbine engine blades and vanes  
[NASA-CASE-LEW-13343-1] c 27 N82-28441
- Thermal reactor --- liquid silicon production from silane gas  
[NASA-CASE-NPO-14369-1] c 44 N83-10501
- Apparatus and method to keep the walls of a free space reactor free from deposits of solid materials  
[NASA-CASE-NPO-15851-1] c 73 N83-12986
- Process and apparatus for growing a crystal ribbon  
[NASA-CASE-NPO-15629-1] c 76 N84-35113

## SILICON CARBIDES

- A method for the deposition of beta-silicon carbide by isoeptitaxy  
[NASA-CASE-ERC-10120] c 26 N69-33482
- Production of high purity silicon carbide Patent  
[NASA-CASE-XLA-00158] c 26 N70-36805
- Apparatus for producing high purity silicon carbide crystals Patent  
[NASA-CASE-XLA-02057] c 26 N70-40015
- Process for fabricating SiC semiconductor devices  
[NASA-CASE-LEW-12094-1] c 76 N76-25049
- Growth of silicon carbide crystals on a seed while pulling silicon crystals from a melt  
[NASA-CASE-NPO-13969-1] c 76 N79-23798
- High temperature silicon carbide impregnated insulating fabrics  
[NASA-CASE-MSC-18832-1] c 27 N83-18908
- Increased voltage photovoltaic cell  
[NASA-CASE-NPO-16155-1] c 44 N84-20917

## SILICON COMPOUNDS

- Method of making a silicon semiconductor device Patent  
[NASA-CASE-XLE-02792] c 26 N71-10607
- Polymerizable disilanes having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979-2] c 06 N73-32030
- Infusible silazane polymer and process for producing same --- protective coatings  
[NASA-CASE-XMF-02526-1] c 27 N79-21190
- Silicon-slurry/aluminide coating --- protecting gas turbine engine vanes and blades  
[NASA-CASE-LEW-13343] c 26 N83-31795

## SILICON CONTROLLED RECTIFIERS

- Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N69-25146
- Transient-compensated SCR inverter  
[NASA-CASE-XLA-08507] c 09 N69-39984
- Reversible ring counter employing cascaded single SCR stages Patent  
[NASA-CASE-XGS-01473] c 09 N71-10673
- SCR blocking pulse gate amplifier Patent  
[NASA-CASE-XLA-07497] c 09 N71-12514
- Combinational logic for generating gate drive signals for phase control rectifiers  
[NASA-CASE-MFS-25208-1] c 33 N83-10345

## SILICON DIOXIDE

- Intermittent type silica gel adsorption refrigerator Patent  
[NASA-CASE-XNP-00920] c 15 N71-15906
- Nose cone mounted heat resistant antenna Patent  
[NASA-CASE-XMS-04312] c 07 N71-22984
- Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient  
[NASA-CASE-ERC-10073-1] c 24 N74-19769
- Silica reusable surface insulation  
[NASA-CASE-ARC-10721-1] c 27 N76-22376
- Two-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-1] c 27 N76-22377
- Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings  
[NASA-CASE-LAR-10385-3] c 74 N78-15879
- Field effect transistor and method of construction thereof  
[NASA-CASE-MFS-23312-1] c 33 N78-27326
- Fibrous refractory composite insulation --- shielding reusable spacecraft  
[NASA-CASE-ARC-11169-1] c 24 N79-24062
- Attachment system for silica tiles --- thermal protection for space shuttle orbiter  
[NASA-CASE-MSC-18741-1] c 27 N82-29456
- Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 33 N83-24763
- Apparatus and method for heating a material in a transparent ampoule --- crystal growth  
[NASA-CASE-MFS-25436-1] c 27 N83-36220

## SILICON FILMS

- A method for the deposition of beta-silicon carbide by isoeptitaxy  
[NASA-CASE-ERC-10120] c 26 N69-33482
- Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 35 N82-31659

## SILICON JUNCTIONS

- Radiation resistant silicon semiconductor devices Patent  
[NASA-CASE-XGS-07801] c 09 N71-12513

## SILICON NITRIDES

- Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient  
[NASA-CASE-ERC-10073-1] c 24 N74-19769
- Silicon nitride coated, plastic covered solar cell  
[NASA-CASE-LEW-11496-1] c 44 N77-14580
- Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371

## SILICON OXIDES

- Three-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-2] c 27 N76-23426

## SILICON POLYMERS

- Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers  
[NASA-CASE-ARC-10915-2] c 27 N79-18052

## SILICON RADIATION DETECTORS

- Thin window, drifted silicon, charged particle detector  
[NASA-CASE-XLE-10529] c 14 N69-23191
- Biomedical radiation detecting probe Patent  
[NASA-CASE-XMS-01177] c 05 N71-19440
- Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765

## SILICON TRANSISTORS

- Tungsten contacts on silicon substrates  
[NASA-CASE-GSC-10695-1] c 09 N72-25259
- Method and apparatus for detecting surface ions on silicon diodes and transistors  
[NASA-CASE-ERC-10325] c 15 N72-25457

## SILICONE RESINS

- Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575

## SILICONES

- Silicone containing solid propellant  
[NASA-CASE-NPO-14477-1] c 28 N80-28536
- Coated flexible laminate and method of its production  
[NASA-CASE-GSC-12913-1] c 27 N84-24807
- Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532

## SILICONIZING

- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00284] c 15 N71-16075

## SILOXANES

- Synthesis of siloxane-containing epoxy polymers Patent  
[NASA-CASE-MFS-13994-1] c 06 N71-11240
- Method of producing alternating ether siloxane copolymers Patent  
[NASA-CASE-XMF-02584] c 06 N71-20905
- Siloxane containing epoxide compounds  
[NASA-CASE-MFS-13994-2] c 06 N72-25148
- Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979] c 06 N72-25151

- Low outgassing polydimethylsiloxane material and preparation thereof  
[NASA-CASE-GSC-11358-1] c 06 N73-26100
- Thermal protection system  
[NASA-CASE-MSC-18796-1] c 24 N82-26389

## SILVER

- Method of making dry electrodes  
[NASA-CASE-FRC-10029-2] c 05 N72-25121

## SILVER ALLOYS

- Brazing alloy composition  
[NASA-CASE-XMF-06053] c 26 N75-27126

## SILVER CHLORIDES

- Electrode for biological recording  
[NASA-CASE-XMS-02872] c 05 N69-21925
- Bonding graphite with fused silver chloride  
[NASA-CASE-XGS-00963] c 15 N69-39735

## SILVER COMPOUNDS

- Water management system and an electrolytic cell therefor Patent  
[NASA-CASE-MSC-10960-1] c 03 N71-24718

## SILVER ZINC BATTERIES

- Electric battery and method for operating same Patent  
[NASA-CASE-XGS-01674] c 03 N71-29129
- Additive for zinc electrodes --- electric automobiles  
[NASA-CASE-LEW-13286-1] c 33 N84-14422

## SIMULATION

- Method and apparatus for simulating gravitational forces on a living organism  
[NASA-CASE-MSC-20202-1] c 54 N84-16803

## SIMULATORS

- Method and apparatus of simulating zero gravity conditions Patent  
[NASA-CASE-MFS-12750] c 27 N71-16223
- Phonocardiogram simulator Patent  
[NASA-CASE-XKS-10804] c 05 N71-24606
- Waveform simulator Patent  
[NASA-CASE-NPO-10251] c 10 N71-27365
- Laser Doppler velocity simulator --- to induce frequency shift  
[NASA-CASE-LAR-12176-1] c 36 N80-16321

## SINE SERIES

- Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-10503-1] c 09 N72-21248
- Function generator for synthesizing complex vibration mode patterns  
[NASA-CASE-LAR-10310-1] c 10 N73-20253

## SINE WAVES

- Waveform simulator Patent  
[NASA-CASE-NPO-10251] c 10 N71-27365
- Wide band doubler and sine wave quadrature generator  
[NASA-CASE-NPO-11133] c 10 N72-20223
- Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-11389-1] c 33 N77-26387

## SINGLE CRYSTALS

- Production of high purity silicon carbide Patent  
[NASA-CASE-XLA-00158] c 26 N70-36805
- Fabrication of single crystal film semiconductor devices  
[NASA-CASE-ERC-10222] c 09 N72-22199
- Hall effect magnetometer  
[NASA-CASE-LEW-11632-2] c 35 N75-13213
- Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-26043
- Method for the preparation of inorganic single crystal and polycrystalline electronic materials  
[NASA-CASE-XLE-02545-1] c 76 N79-21910
- Growth of silicon carbide crystals on a seed while pulling silicon crystals from a melt  
[NASA-CASE-NPO-13969-1] c 76 N79-23798
- Total immersion crystal growth --- using a melt covered with an encapsulating fluid  
[NASA-CASE-NPO-15800-1] c 76 N83-15149
- Method of making macrocrystalline or single crystal semiconductive material and products produced thereby --- epitaxial substrates using low melting materials for photovoltaic cells  
[NASA-CASE-NPO-15904-1] c 76 N83-21993

## SINTERING

- Condenser - Separator  
[NASA-CASE-XLA-08645] c 15 N69-21465
- Method of producing refractory bodies having controlled porosity Patent  
[NASA-CASE-LEW-10393-1] c 17 N71-15468

- Electrodes for solid state devices  
[NASA-CASE-NPO-15161-1] c 33 N84-16456
- Method of making a light weight battery plaque  
[NASA-CASE-LEW-13349-1] c 26 N84-22734

## SIZE (DIMENSIONS)

- Apparatus for producing metal powders  
[NASA-CASE-XLE-06461-2] c 17 N72-28535

## SIZE DETERMINATION

- Impact measuring technique  
[NASA-CASE-LAR-10913] c 14 N72-16282



## SIZE SEPARATION

Small conductive particle sensor --- microfiber size determination  
[NASA-CASE-LAR-12552-1] c 35 N82-11431

**SIZE SEPARATION**  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-26148  
Material handling device Patent  
[NASA-CASE-XNP-09770-3] c 11 N71-27036

**SIZING (SHAPING)**  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-17650

**SIZING SCREENS**  
Method of making screen by casting Patent  
[NASA-CASE-XLE-00953] c 15 N71-15966  
Screen particle separator  
[NASA-CASE-XNP-09770-2] c 15 N72-22483

**SKEWNESS**  
Tape guidance system and apparatus for the provision thereof Patent  
[NASA-CASE-XNP-09453] c 08 N71-19420  
Automatic character skew and spacing checking network --- of digital tape drive systems  
[NASA-CASE-GSC-11925-1] c 33 N76-18353

**SKID LANDINGS**  
Nose gear steering system for vehicle with main skids Patent  
[NASA-CASE-XLA-01804] c 02 N70-34160

**SKIN (ANATOMY)**  
Process for conditioning tanned sharkskin and articles made therefrom Patent  
[NASA-CASE-XMS-09691-1] c 18 N71-15545  
Percutaneous connector device  
[NASA-CASE-KSC-10849-1] c 52 N77-14738  
Medical diagnosis system and method with multispectral imaging --- depth of burns and optical density of the skin  
[NASA-CASE-NPO-14402-1] c 52 N81-27783

**SKIN (STRUCTURAL MEMBER)**  
Flexibly connected support and skin Patent  
[NASA-CASE-XLA-01027] c 31 N71-24035  
Fire extinguishing apparatus having a slidable mass for a penetrator nozzle --- for penetrating aircraft and shuttle orbiter skin  
[NASA-CASE-KSC-11064-1] c 31 N81-14137

**SKIN FRICTION**  
Skin friction measuring device for aircraft  
[NASA-CASE-FRC-11029-1] c 06 N81-17057  
Hot foil transducer skin friction sensor  
[NASA-CASE-LAR-12321-1] c 35 N82-24470  
Dual-beam skin friction interferometer  
[NASA-CASE-ARC-11354-1] c 74 N83-21949

**SKIN TEMPERATURE (BIOLOGY)**  
Thermistor holder for skin temperature measurements  
[NASA-CASE-ARC-10855-1] c 52 N77-10780

**SKIN TEMPERATURE (NON-BIOLOGICAL)**  
Heat flux measuring system Patent  
[NASA-CASE-XFR-03802] c 33 N71-23085

**SKIRTS**  
Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708

**SKY BRIGHTNESS**  
Cloud cover sensor  
[NASA-CASE-NPO-14936-1] c 47 N83-32232

**SLEEP**  
EEG sleep analyzer and method of operation Patent  
[NASA-CASE-MSC-13282-1] c 05 N71-24729

**SLEEVES**  
Energy absorbing device Patent  
[NASA-CASE-XMF-10040] c 15 N71-22877  
System for enhancing tool-exchange capabilities of a portable wrench  
[NASA-CASE-MFS-22283-1] c 37 N75-33395  
Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772  
Fire extinguishing apparatus having a slidable mass for a penetrator nozzle --- for penetrating aircraft and shuttle orbiter skin  
[NASA-CASE-KSC-11064-1] c 31 N81-14137

**SLENDER BODIES**  
A support technique for vertically oriented launch vehicles  
[NASA-CASE-XLA-02704] c 11 N69-21540

**SLENDER WINGS**  
Leading edge vortex flaps for drag reduction --- during subsonic flight  
[NASA-CASE-LAR-12750-1] c 02 N81-19016

**SLICING**  
Method and apparatus for slicing crystals  
[NASA-CASE-GSC-12291-1] c 76 N80-18951  
System for slicing silicon wafers  
[NASA-CASE-NPO-14406-1] c 37 N80-29703  
Scriber for silicon wafers  
[NASA-CASE-NPO-15539-1] c 37 N82-11469  
Improved ingot slicing machine  
[NASA-CASE-NPO-15483-1] c 37 N82-28642

Workpiece positioning vise  
[NASA-CASE-GSC-12762-1] c 37 N84-28083

**SLIDING CONTACT**  
Electrical connector pin with wiping action  
[NASA-CASE-XMF-04238] c 09 N69-39734  
Continuous turning slip ring assembly Patent  
[NASA-CASE-XMF-01049] c 15 N71-23049  
Electrical rotary joint apparatus for large space structures  
[NASA-CASE-MFS-23981-1] c 07 N83-20944

**SLIDING FRICTION**  
Bearing material --- composite material with low friction surface for rolling or sliding contact  
[NASA-CASE-LEW-11930-1] c 24 N76-22309

**SLIP CASTING**  
Process of casting heavy slips Patent  
[NASA-CASE-XLE-00106] c 15 N71-16076

**SLITS**  
Slit regulated gas journal bearing Patent  
[NASA-CASE-XNP-00476] c 15 N70-38620  
Method of fabricating an object with a thin wall having a precisely shaped slit  
[NASA-CASE-LAR-10409-1] c 31 N74-21059  
Dual acting slit control mechanism  
[NASA-CASE-LAR-11370-1] c 35 N80-28686

**SLOPES**  
Penetrometer --- for determining load bearing characteristics of inclined surfaces  
[NASA-CASE-NPO-11103-1] c 35 N77-27367  
Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability  
[NASA-CASE-LAR-12843-1] c 02 N84-11136

**SLOT ANTENNAS**  
Virtual wall slot circularly polarized planar array antenna  
[NASA-CASE-NPO-10301] c 07 N72-11148  
Omnidirectional slot antenna for mounting on cylindrical space vehicle  
[NASA-CASE-LAR-10163-1] c 09 N72-25247  
Circularly polarized antenna  
[NASA-CASE-ERC-10214] c 09 N72-31235  
Turnstile slot antenna  
[NASA-CASE-GSC-11428-1] c 32 N74-20864  
Horn antenna having V-shaped corrugated slots  
[NASA-CASE-LAR-11112-1] c 32 N76-15330  
Spiral slotted phased antenna array  
[NASA-CASE-MSC-18532-1] c 32 N82-27558

**SLOTS**  
Bellefonte spring assembly with elastic guides  
[NASA-CASE-XNP-09452] c 15 N69-27504  
Direct lift control system Patent  
[NASA-CASE-LAR-10249-1] c 02 N71-26110  
Fine adjustment mount  
[NASA-CASE-MFS-20249] c 15 N72-11386  
Method and tool for machining a transverse slot about a bore  
[NASA-CASE-LAR-11855-1] c 37 N81-14319

**SLUDGE**  
Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634

**SLURRIES**  
Silicon-slurry/aluminide coating --- protecting gas turbine engine vanes and blades  
[NASA-CASE-LEW-13343] c 26 N83-31795  
Oxidation resistant slurry coating for carbon-based materials  
[NASA-CASE-LEW-13923-1] c 24 N84-16266

**SLURRY PROPELLANTS**  
Apparatus for making a metal slurry product Patent  
[NASA-CASE-XLE-00010] c 15 N70-33382

**SMOKE**  
Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent  
[NASA-CASE-XNP-01310] c 33 N71-28852  
Stack plume visualization system  
[NASA-CASE-LAR-11675-1] c 45 N76-17656  
Smoke generator  
[NASA-CASE-ARC-10905-1] c 37 N77-13418  
Continuous laminar smoke generator --- visualizing flow around wind tunnel models  
[NASA-CASE-LAR-13014-1] c 28 N83-35158

**SODIUM CHLORIDES**  
Diffuse reflective coating  
[NASA-CASE-GSC-11214-1] c 06 N73-13128  
Separator for alkaline electric batteries and method of making  
[NASA-CASE-GSC-10018-1] c 44 N82-24644

**SODIUM VAPOR**  
Method of producing silicon --- gas phase reactor multiple injector liquid feed system  
[NASA-CASE-NPO-14382-1] c 31 N80-18231

**SOFT LANDING**  
Non-reusable kinetic energy absorber Patent  
[NASA-CASE-XLE-00810] c 15 N70-34861

Space craft soft landing system Patent  
[NASA-CASE-XMF-02108] c 31 N70-36845  
Omnidirectional multiple impact landing system Patent  
[NASA-CASE-XLA-09881] c 31 N71-16085

**SOFT LANDING SPACECRAFT**  
Pivotal shock absorbing pad assembly Patent  
[NASA-CASE-XMF-03856] c 31 N70-34159

**SOIL MECHANICS**  
Penetrometer --- for determining load bearing characteristics of inclined surfaces  
[NASA-CASE-NPO-11103-1] c 35 N77-27367

**SOIL MOISTURE**  
Radar target for remotely sensing hydrological phenomena  
[NASA-CASE-LAR-12344-1] c 43 N80-18498

**SOIL SCIENCE**  
Soil penetrometer  
[NASA-CASE-XNP-05530] c 14 N73-32321  
System for plotting subsoil structure and method thereof  
[NASA-CASE-NPO-14191-1] c 31 N80-32584

**SOILS**  
Screen particle separator  
[NASA-CASE-XNP-09770-2] c 15 N72-22483  
Burrowing apparatus  
[NASA-CASE-XNP-07169] c 15 N73-32362  
Remote sensing of vegetation and soil using microwave ellipsometry  
[NASA-CASE-GSC-11976-1] c 43 N78-10529

**SOL-GEL PROCESSES**  
Alkali-metal silicate binders and methods of manufacture  
[NASA-CASE-GSC-12303-1] c 24 N79-31347

**SOLAR ACTIVITY**  
Method and apparatus for measuring solar activity and atmospheric radiation effects  
[NASA-CASE-ERC-10276] c 14 N73-26432

**SOLAR ARRAYS**  
Deployable solar cell array  
[NASA-CASE-NPO-10883] c 31 N72-22874  
Use of unilluminated solar cells as shunt diodes for a solar array  
[NASA-CASE-GSC-10344-1] c 03 N72-27053  
Solar energy powered heliotrope  
[NASA-CASE-GSC-10945-1] c 21 N72-31637  
Method of making silicon solar cell array --- and mounting on flexible substrate  
[NASA-CASE-LEW-11069-1] c 44 N74-14784  
Solar cell shingle  
[NASA-CASE-LEW-12587-1] c 44 N77-31601  
Hexagon solar power panel  
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[NASA-CASE-LEW-13286-1] c 33 N84-14422
- SOLID LUBRICANTS**  
Bonded solid lubricant coating Patent  
[NASA-CASE-XMS-00259] c 18 N70-36400  
Method of lubricating rolling element bearings Patent  
[NASA-CASE-XLE-09527] c 15 N71-17688  
Inorganic solid film lubricants Patent  
[NASA-CASE-XMF-03988] c 15 N71-21403  
Rolling element bearings Patent  
[NASA-CASE-XLE-09527-2] c 15 N71-26189  
Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications  
[NASA-CASE-LEW-11930-4] c 24 N79-17916
- SOLID PHASES**  
Solid electrolyte cell  
[NASA-CASE-NPO-15269-1] c 44 N82-29710
- SOLID PROPELLANT IGNITION**  
Apparatus for igniting solid propellants Patent  
[NASA-CASE-XLE-00207] c 28 N70-33375  
Method of igniting solid propellants Patent  
[NASA-CASE-XLE-01988] c 27 N71-15634  
Molded composite pyrogen igniter for rocket motors --- solid propellant ignition  
[NASA-CASE-LAR-12018-1] c 20 N78-24275  
Method and apparatus for suppressing ignition overpressure in solid rocket propulsion systems  
[NASA-CASE-MFS-25843-1] c 20 N83-17588
- SOLID PROPELLANT ROCKET ENGINES**  
Spherical solid-propellant rocket motor Patent  
[NASA-CASE-XLA-00105] c 28 N70-33331  
Mandrel for shaping solid propellant rocket fuel into a motor casing Patent  
[NASA-CASE-XLA-00304] c 27 N70-34783  
Spherically-shaped rocket motor Patent  
[NASA-CASE-XHO-01897] c 28 N70-35381  
Propellant grain for rocket motors Patent  
[NASA-CASE-XGS-03556] c 27 N70-35534  
Apparatus and method for control of a solid fueled rocket vehicle Patent  
[NASA-CASE-XNP-00217] c 28 N70-38181  
Steerable solid propellant rocket motor Patent  
[NASA-CASE-XNP-00234] c 28 N70-38645  
Method of making a solid propellant rocket motor Patent  
[NASA-CASE-XLA-04126] c 28 N71-26779  
Electrical apparatus for detection of thermal decomposition of insulation Patent  
[NASA-CASE-XMF-03968] c 14 N71-27186  
Solid propellant rocket motor  
[NASA-CASE-XNP-03282] c 28 N72-20758

- Solid propellant rocket motor nozzle  
[NASA-CASE-NPO-11458] c 28 N72-23810
- Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784
- Space vehicle  
[NASA-CASE-MFS-22734-1] c 18 N75-19329
- Solid propellant rocket motor and method of making same  
[NASA-CASE-XLA-1349] c 20 N77-17143
- Molded composite pyrogen igniter for rocket motors --- solid propellant ignition  
[NASA-CASE-LAR-12018-1] c 20 N78-24275
- Solid propellant motor  
[NASA-CASE-NPO-11458A] c 20 N78-32179
- Method and apparatus for suppressing ignition overpressure in solid rocket propulsion systems  
[NASA-CASE-MFS-25843-1] c 20 N83-17588
- Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784
- SOLID PROPELLANTS**  
Variable thrust ion engine utilizing thermally decomposable solid fuel Patent  
[NASA-CASE-XMF-00923] c 28 N70-36802
- Means and method of measuring viscoelastic strain Patent  
[NASA-CASE-XNP-01153] c 32 N71-17645
- Processing for producing a sterilized instrument Patent  
[NASA-CASE-XNP-09763] c 14 N71-20461
- Method of forming difunctional polyisobutylene  
[NASA-CASE-NPO-10893] c 27 N73-22710
- SOLID ROCKET BINDERS**  
Solid propellant liner Patent  
[NASA-CASE-XNP-09744] c 27 N71-16392
- Silicone containing solid propellant  
[NASA-CASE-NPO-14477-1] c 28 N80-28536
- SOLID ROCKET PROPELLANTS**  
Process for preparing sterile solid propellants Patent  
[NASA-CASE-XNP-01749] c 27 N70-41897
- Burning rate control of solid propellants Patent  
[NASA-CASE-XLE-03494] c 27 N71-21819
- Hydrazinium nitroformate propellant stabilized with nitroguanidine  
[NASA-CASE-NPO-12000] c 27 N72-25699
- Hydrazinium nitroformate propellant with saturated polymeric hydrocarbon binder  
[NASA-CASE-NPO-12015] c 27 N73-16764
- Preparing oxidizer coated metal fuel particles  
[NASA-CASE-NPO-11975-1] c 28 N74-33209
- Casting propellant in rocket engine  
[NASA-CASE-LAR-11995-1] c 28 N77-10213
- Solid propellant rocket motor and method of making same  
[NASA-CASE-XLA-1349] c 20 N77-17143
- High performance ammonium nitrate propellant  
[NASA-CASE-NPO-14260-1] c 28 N79-28342
- Process for the leaching of AP from propellant  
[NASA-CASE-NPO-14109-1] c 28 N80-23471
- Silicone containing solid propellant  
[NASA-CASE-NPO-14477-1] c 28 N80-28536
- SOLID STATE**  
Solid state chemical source for ammonia beam maser Patent  
[NASA-CASE-XGS-01504] c 16 N70-41578
- SOLID STATE DEVICES**  
Solid state switch  
[NASA-CASE-XNP-09228] c 09 N69-27500
- Temperature compensated solid state differential amplifier Patent  
[NASA-CASE-XAC-00435] c 09 N70-35440
- Operational integrator Patent  
[NASA-CASE-NPO-10230] c 09 N71-12520
- Microwave power receiving antenna Patent  
[NASA-CASE-MFS-20333] c 09 N71-13486
- Counter and shift register Patent  
[NASA-CASE-XNP-01753] c 08 N71-22897
- Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612
- Switching circuit Patent  
[NASA-CASE-XNP-06505] c 10 N71-24799
- Transverse piezoresistance and pinch effect electromechanical transducers Patent  
[NASA-CASE-ERC-10088] c 26 N71-25490
- A solid state acoustic variable time delay line Patent  
[NASA-CASE-ERC-10032] c 10 N71-25900
- Broadband stable power multiplier Patent  
[NASA-CASE-XNP-10854] c 10 N71-26331
- Solid state remote circuit selector switch  
[NASA-CASE-LEW-10387] c 09 N72-22201
- RF controlled solid state switch  
[NASA-CASE-ARC-10136-1] c 09 N72-22202
- Thermal to electrical power conversion system with solid-state switches with Seebeck effect compensation  
[NASA-CASE-NPO-11388] c 03 N72-23048
- Radiation sensitive solid state switch  
[NASA-CASE-NPO-10817-1] c 08 N73-30135
- Full wave modulator-demodulator amplifier apparatus --- for generating rectified output signal  
[NASA-CASE-FRC-10072-1] c 33 N74-14939
- Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251
- Solid-state current transformer  
[NASA-CASE-MFS-22560-1] c 33 N77-14335
- Space-charge-limited solid-state triode  
[NASA-CASE-NPO-13064-1] c 33 N79-11314
- Hermetically sealable package for hybrid solid-state electronic devices and the like  
[NASA-CASE-MS-C-20181-1] c 33 N82-28549
- Control means for a solid state crossbar switch  
[NASA-CASE-NPO-15066-1] c 33 N82-29538
- Self-correcting electronically scanned pressure sensor  
[NASA-CASE-LAR-12686-1] c 35 N84-14491
- Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765
- SOLID SURFACES**  
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170
- SOLID WASTES**  
Process of forming catalytic surfaces for wet oxidation reactions  
[NASA-CASE-MS-C-14831-1] c 25 N78-10225
- SOLID-SOLID INTERFACES**  
Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443
- Coal-rock interface detector  
[NASA-CASE-MFS-23725-1] c 43 N79-31706
- SOLIDIFICATION**  
Method of preparing radially homogeneous mercury cadmium telluride crystals  
[NASA-CASE-MFS-25786-1] c 76 N83-18533
- Method and apparatus for supercooling and solidifying substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650
- SOLIDIFIED GASES**  
Cooling by conversion of para to ortho-hydrogen  
[NASA-CASE-GSC-12770-1] c 25 N83-29324
- SOLIDS**  
Apparatus and method to keep the walls of a free space reactor free from deposits of solid materials  
[NASA-CASE-NPO-15851-1] c 73 N83-12986
- SOLIDS FLOW**  
Use of glow discharge in fluidized beds  
[NASA-CASE-ARC-11245-1] c 28 N82-18401
- Acoustic agglomeration methods and apparatus  
[NASA-CASE-NPO-15466-1] c 71 N82-27087
- SOLUBILITY**  
Fire resistant coating composition Patent  
[NASA-CASE-GSC-10072] c 18 N71-14014
- Insoluble polyelectrolyte and ion-exchange hollow fiber impregnated therewith  
[NASA-CASE-NPO-13530-1] c 25 N81-17187
- Method for the preparation of thin-skinned asymmetric reverse osmosis membranes and products thereof  
[NASA-CASE-ARC-11359-1] c 51 N84-28361
- SOLUTES**  
Specific wavelength colorimeter --- for measuring given solute concentration in test sample  
[NASA-CASE-MS-C-14081-1] c 35 N74-27860
- SOLUTIONS**  
Method and apparatus for minimizing convection during crystal growth from solution  
[NASA-CASE-NPO-15811-1] c 76 N84-12968
- SOLVENT EXTRACTION**  
Recovery of aluminum from composite propellants  
[NASA-CASE-NPO-14110-1] c 28 N81-15119
- Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15767-1] c 23 N84-16255
- SOLVENTS**  
Coal desulfurization --- using iron pentacarbonyl  
[NASA-CASE-NPO-14272-1] c 25 N81-33246
- A solvent resistant, thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-29391
- Supercritical solvent coal extraction  
[NASA-CASE-NPO-15210-1] c 25 N84-22709
- SONAR**  
Method for shaping and aiming narrow beams --- sonar mapping and target identification  
[NASA-CASE-NPO-14632-1] c 32 N82-18443
- Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376
- SONIC BOOMS**  
Instrumentation for measurement of aircraft noise and sonic boom  
[NASA-CASE-LAR-11173-1] c 35 N75-19614
- Instrumentation for measuring aircraft noise and sonic boom  
[NASA-CASE-LAR-11476-1] c 07 N76-27232
- SORBATES**  
Apparatus for measuring a sorbate dispersed in a fluid stream  
[NASA-CASE-ARC-10896-1] c 35 N78-19465
- SORET COEFFICIENT**  
Method of growing composites of the type exhibiting the Soret effect --- improved structure of eutectic alloy crystals  
[NASA-CASE-MFS-22926-1] c 24 N77-27187
- SOUND GENERATORS**  
Ejectable underwater sound source recovery assembly  
[NASA-CASE-LAR-10595-1] c 35 N74-16135
- Acoustic suspension system  
[NASA-CASE-NPO-15435-1] c 71 N83-36846
- SOUND LOCALIZATION**  
Resolution enhanced sound detecting apparatus  
[NASA-CASE-NPO-14134-1] c 71 N79-23753
- SOUND PRESSURE**  
Instrumentation for measurement of aircraft noise and sonic boom  
[NASA-CASE-LAR-11173-1] c 35 N75-19614
- Differential sound level meter  
[NASA-CASE-LAR-12106-1] c 71 N78-14867
- SOUND PROPAGATION**  
System for plotting subsoil structure and method therefor  
[NASA-CASE-NPO-14191-1] c 31 N80-32584
- SOUND RANGING**  
Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376
- SOUND TRANSDUCERS**  
Method for detecting hydrogen gas  
[NASA-CASE-XMF-03873] c 06 N69-39733
- Cosmic dust sensor  
[NASA-CASE-GSC-10503-1] c 14 N72-20381
- Resolution enhanced sound detecting apparatus  
[NASA-CASE-NPO-14134-1] c 71 N79-23753
- Pulse transducer with artifact signal attenuator --- heart rate sensors  
[NASA-CASE-FRC-11012-1] c 52 N80-23969
- Acoustic system for material transport  
[NASA-CASE-NPO-15453-1] c 71 N83-32515
- Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948
- SOUND WAVES**  
Phonocardiograph transducer Patent  
[NASA-CASE-XMS-05365] c 14 N71-22993
- Material suspension within an acoustically excited resonant chamber --- at near weightless conditions  
[NASA-CASE-NPO-13263-1] c 12 N75-24774
- Acoustic energy shaping  
[NASA-CASE-NPO-13802-1] c 71 N78-10837
- Acoustic driving of rotor  
[NASA-CASE-NPO-14005-1] c 71 N79-20827
- Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112
- Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781
- Acoustic ground impedance meter  
[NASA-CASE-LAR-12995-1] c 35 N84-22933
- Acoustic rotation control  
[NASA-CASE-NPO-15689-1] c 71 N84-23233
- SOUNDING ROCKETS**  
Attitude control system for sounding rockets Patent  
[NASA-CASE-XGS-01654] c 31 N71-24750
- Method and system for ejecting fairing sections from a rocket vehicle  
[NASA-CASE-GSC-10590-1] c 31 N73-14853
- SPACE CAPSULES**  
Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-36410
- Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664
- Space capsule ejection assembly Patent  
[NASA-CASE-XMF-03169] c 31 N71-15675
- SPACE CHARGE**  
Space-charge-limited solid-state triode  
[NASA-CASE-NPO-13064-1] c 33 N79-11314
- FET charge sensor and voltage probe  
[NASA-CASE-NPO-16045-1] c 76 N84-33211
- SPACE COMMUNICATION**  
Multiple input radio receiver Patent  
[NASA-CASE-XLA-00901] c 07 N71-10775
- Tracking receiver Patent  
[NASA-CASE-XGS-08679] c 10 N71-21473
- Apparatus providing a directive field pattern and attitude sensing of a spin stabilized satellite Patent  
[NASA-CASE-XGS-02607] c 31 N71-23009
- Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel  
[NASA-CASE-NPO-13545-1] c 32 N77-12240
- SPACE ENVIRONMENT SIMULATION**  
Voltage-current characteristic simulator Patent  
[NASA-CASE-XMS-01554] c 10 N71-10578
- Fluid dispensing apparatus and method Patent  
[NASA-CASE-XLE-01182] c 27 N71-15635

- Reduced gravity simulator Patent  
[NASA-CASE-XLA-01787] c 11 N71-16028
- Apparatus for measuring electric field strength on the surface of a model vehicle Patent  
[NASA-CASE-XLE-02038] c 09 N71-16086
- Optical characteristics measuring apparatus Patent  
[NASA-CASE-XNP-08840] c 23 N71-16365
- Omni-directional anisotropic molecular trap Patent  
[NASA-CASE-XGS-00783] c 30 N71-17788
- Space environmental work simulator Patent  
[NASA-CASE-XMF-07488] c 11 N71-18773
- Mechanical simulator of low gravity conditions Patent  
[NASA-CASE-MFS-10555] c 11 N71-19494
- Self-lubricating fluoride metal composite materials Patent  
[NASA-CASE-XLE-08511] c 18 N71-23710
- Autoignition test cell Patent  
[NASA-CASE-KSC-01098] c 11 N71-28629
- Illumination system including a virtual light source Patent  
[NASA-CASE-HQN-10781] c 23 N71-30292
- Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332] c 05 N72-20097
- Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749
- SPACE ERECTABLE STRUCTURES**
- Flexible foam erectable space structures Patent  
[NASA-CASE-XLA-00686] c 31 N70-34135
- Erectable modular space station Patent  
[NASA-CASE-XLA-00678] c 31 N70-34296
- Manned space station Patent  
[NASA-CASE-XLA-00258] c 31 N70-38676
- Collapsible loop antenna for space vehicle Patent  
[NASA-CASE-XMF-00437] c 07 N70-40202
- Passive communication satellite Patent  
[NASA-CASE-XLA-00210] c 30 N70-40309
- Flexible wing deployment device Patent  
[NASA-CASE-XLA-01220] c 02 N70-41863
- Capillary radiator Patent  
[NASA-CASE-XLE-03307] c 33 N71-14035
- Space manufacturing machine Patent  
[NASA-CASE-MFS-20410] c 15 N71-19214
- Roll-up solar array Patent  
[NASA-CASE-NPO-10188] c 03 N71-20273
- Collapsible reflector Patent  
[NASA-CASE-XMS-03454] c 09 N71-20658
- Inflatable support structure Patent  
[NASA-CASE-XLA-01731] c 32 N71-21045
- Radiator deployment actuator Patent  
[NASA-CASE-MSC-11817-1] c 15 N71-26611
- Inflatable tether Patent  
[NASA-CASE-XMS-10993] c 15 N71-28936
- Expandable space frames  
[NASA-CASE-ERC-10365-1] c 31 N73-32749
- Apparatus for assembling space structure  
[NASA-CASE-MFS-23579-1] c 18 N79-11108
- Lightweight structural columns — space erectable trusses  
[NASA-CASE-LAR-12095-1] c 31 N81-25258
- Telescoping columns — parabolic antenna support  
[NASA-CASE-LAR-12195-1] c 31 N81-27324
- Synchronously deployable truss structure  
[NASA-CASE-LAR-13117-1] c 18 N84-18250
- Foldable self-erecting joint — space erectable structures  
[NASA-CASE-MSC-20635-1] c 18 N84-32424
- SPACE EXPLORATION**
- Vehicle for use in planetary exploration  
[NASA-CASE-NPO-11366] c 11 N73-26238
- SPACE FLIGHT**
- Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203
- Television simulation for aircraft and space flight Patent  
[NASA-CASE-XFR-03107] c 09 N71-19449
- SPACE FLIGHT FEEDING**
- Helmet feedport  
[NASA-CASE-XMS-09653] c 54 N78-17680
- Self-charging metering and dispensing device for fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856
- SPACE INDUSTRIALIZATION**
- Apparatus for assembling space structure  
[NASA-CASE-MFS-23579-1] c 18 N79-11108
- SPACE MAINTENANCE**
- Thruster maintenance system Patent  
[NASA-CASE-MFS-20325] c 28 N71-27095
- High temperature emittance coatings and coating compositions — repairing damaged space shuttle tiles in space  
[NASA-CASE-MSC-18851-1] c 27 N82-26460
- Spray applicator for spraying coatings and other fluids in space  
[NASA-CASE-MSC-18852-1] c 37 N82-28640
- Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- Hot melt recharge system — repairing damaged or missing tiles on space shuttle orbiter  
[NASA-CASE-LAR-12881-1] c 27 N84-14323
- Mechanical fastener  
[NASA-CASE-LAR-12738-2] c 18 N84-15180
- SPACE MANUFACTURING**
- Material suspension within an acoustically excited resonant chamber — at near weightless conditions  
[NASA-CASE-NPO-13263-1] c 12 N75-24774
- Method for manufacturing mirrors in zero gravity environment  
[NASA-CASE-MSC-12611-1] c 12 N76-15189
- Apparatus for assembling space structure  
[NASA-CASE-MFS-23579-1] c 18 N79-11108
- Structural members, method and apparatus  
[NASA-CASE-MSC-16217-1] c 31 N81-27323
- Self-locking mechanical center joint — for space construction  
[NASA-CASE-LAR-12884-1] c 37 N82-29606
- SPACE MISSIONS**
- Method of planetary atmospheric investigation using a split-trajectory dual flyby mode Patent  
[NASA-CASE-XAC-08494] c 30 N71-15990
- Deep space monitor communication satellite system Patent  
[NASA-CASE-XAC-06029-1] c 31 N71-24813
- A method of delivering a vehicle to earth orbit and returning the reusable portion thereof to earth  
[NASA-CASE-MSC-12391] c 30 N73-12884
- Liquid hydrogen polygeneration system and process  
[NASA-CASE-KSC-11304-1] c 28 N84-29017
- SPACE NAVIGATION**
- Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688
- Dual purpose momentum wheels for spacecraft with magnetic recording  
[NASA-CASE-NPO-11481] c 21 N73-13644
- Star tracking reticles and process for the production thereof  
[NASA-CASE-GSC-11188-2] c 21 N73-19630
- SPACE ORIENTATION**
- Method and apparatus for determining satellite orientation utilizing spatial energy sources Patent  
[NASA-CASE-XGS-00466] c 21 N70-34297
- SPACE PLATFORMS**
- Articulated joint for deployable structures  
[NASA-CASE-NPO-16038-1] c 37 N83-20157
- SPACE PROBES**
- Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609
- SPACE PROCESSING**
- Exothermic furnace module  
[NASA-CASE-MFS-25707-1] c 35 N82-26631
- High gradient directional solidification furnace — for space processing  
[NASA-CASE-MFS-25963-1] c 35 N84-16531
- SPACE RENDEZVOUS**
- Method and apparatus for securing to a spacecraft Patent  
[NASA-CASE-MFS-11133] c 31 N71-16222
- Apparatus for releasably connecting first and second objects in predetermined space relationship  
[NASA-CASE-MSC-18969-1] c 18 N84-22605
- Rotatable electric cable connecting system  
[NASA-CASE-GSC-12899-1] c 33 N84-29085
- SPACE SHUTTLE BOOSTERS**
- Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784
- SPACE SHUTTLE ORBITERS**
- Surface conforming thermal/pressure seal — tail assemblies of space shuttle orbiters  
[NASA-CASE-MSC-18422-1] c 37 N82-16408
- High temperature emittance coatings and coating compositions — repairing damaged space shuttle tiles in space  
[NASA-CASE-MSC-18851-1] c 27 N82-26460
- Television camera video level control system — space shuttle orbiters  
[NASA-CASE-MSC-18578-1] c 74 N82-27121
- CAM controlled retractable door latch  
[NASA-CASE-MSC-20304-1] c 37 N82-31690
- Self-charging metering and dispensing device for fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856
- High temperature glass thermal control structure and coating — for application to spacecraft reusable heat shielding  
[NASA-CASE-ARC-11184-1] c 44 N83-34448
- Hot melt recharge system — repairing damaged or missing tiles on space shuttle orbiter  
[NASA-CASE-LAR-12881-1] c 27 N84-14323
- Pre-stressed thermal protection systems  
[NASA-CASE-MSC-20254-1] c 16 N84-22601
- Constant force friction damper  
[NASA-CASE-MSC-20505-1] c 18 N84-22611
- Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784
- Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886
- SPACE SHUTTLE PAYLOADS**
- Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612
- SPACE SHUTTLES**
- Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087
- A method of delivering a vehicle to earth orbit and returning the reusable portion thereof to earth  
[NASA-CASE-MSC-12391] c 30 N73-12884
- Space shuttle vehicle and system  
[NASA-CASE-MSC-12433] c 31 N73-14854
- Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041
- Fused silicide coatings containing discrete particles for protecting niobium alloys — used in space shuttle thermal protection systems and turbine engine components  
[NASA-CASE-LEW-11179-1] c 27 N76-16229
- Device for coupling a first vehicle to a second vehicle  
[NASA-CASE-GSC-12429-1] c 37 N81-14320
- System for sterilizing objects — cleaning space vehicle systems  
[NASA-CASE-KSC-11085-1] c 54 N81-24724
- Terminal guidance sensor system — space shuttle coupling to orbiting satellites  
[NASA-CASE-NPO-14521-1] c 37 N81-27519
- Adjustable high emittance gap filler — reentry shielding for space shuttle vehicles  
[NASA-CASE-ARC-11310-1] c 27 N82-24339
- Hemispherical latching apparatus for payload retention  
[NASA-CASE-MFS-25837] c 16 N82-31398
- SPACE SIMULATORS**
- Space simulator Patent  
[NASA-CASE-XNP-00459] c 11 N70-38675
- Variable geometry manned orbital vehicle Patent  
[NASA-CASE-XLA-03691] c 31 N71-15674
- Space simulation and radiative property testing system and method Patent  
[NASA-CASE-MFS-20096] c 14 N71-30026
- Biocentrifuge system capable of exchanging specimen cages while in operational mode  
[NASA-CASE-MFS-23825-1] c 51 N81-32829
- SPACE STATIONS**
- Manned space station Patent  
[NASA-CASE-XLA-00258] c 31 N70-38676
- Meteoroid impact position locator aid for manned space station  
[NASA-CASE-LAR-10629-1] c 35 N75-33367
- Multiple in-line docking capability for rotating space stations  
[NASA-CASE-MFS-20855-1] c 15 N77-10112
- Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612
- SPACE STORAGE**
- Hemispherical latching apparatus for payload retention  
[NASA-CASE-MFS-25837] c 16 N82-31398
- SPACE SUITS**
- Universal pilot restraint suit and body support therefor Patent  
[NASA-CASE-XAC-00405] c 05 N70-41819
- Space suit pressure stabilizer Patent  
[NASA-CASE-XLA-05332] c 05 N71-11194
- Equipotential space suit Patent  
[NASA-CASE-LAR-10007-1] c 05 N71-11195
- Biological isolation garment Patent  
[NASA-CASE-MSC-12208-1] c 05 N71-17599
- Space environmental work simulator Patent  
[NASA-CASE-XMF-07488] c 11 N71-18773
- Space suit heat exchanger Patent  
[NASA-CASE-XMS-09571] c 05 N71-19439
- G conditioning suit Patent  
[NASA-CASE-XLA-02898] c 05 N71-20268
- Hard space suit Patent  
[NASA-CASE-XAC-07043] c 05 N71-23161
- Evacuation port seal Patent  
[NASA-CASE-XMF-03290] c 15 N71-23256
- Fabric for micrometeoroid protection garment Patent  
[NASA-CASE-MSC-12109] c 18 N71-26285

Venting device for pressurized space suit helmet Patent  
[NASA-CASE-XMS-09652-1] c 05 N71-26333

Automatic control of liquid cooling garment by cutaneous and external auditory meatus temperatures  
[NASA-CASE-MSC-13917-1] c 05 N72-15098

Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332] c 05 N72-20097

Space suit having improved waist and torso movement  
[NASA-CASE-ARC-10275-1] c 05 N72-22092

Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332-2] c 05 N73-25125

Temperature controller for a fluid cooled garment  
[NASA-CASE-ARC-10599-1] c 05 N73-26071

Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012

Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405

Protective garment ventilation system  
[NASA-CASE-XMS-04928] c 54 N78-17679

Emergency space-suit helmet  
[NASA-CASE-MSC-10954-1] c 54 N78-18761

Spacesuit mobility joints  
[NASA-CASE-ARC-11058-1] c 54 N78-31735

Spacesuit torso closure  
[NASA-CASE-ARC-11100-1] c 54 N78-31736

Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721

Spacesuit mobility knee joints  
[NASA-CASE-ARC-11058-2] c 54 N79-24651

Absorbent product to absorb fluids --- for collection of human wastes  
[NASA-CASE-MSC-18223-1] c 24 N82-29362

Shoulder and hip joint for hard space suits and the like  
[NASA-CASE-ARC-11534-1] c 54 N84-33021

**SPACE TOOLS**  
Pneumatic inflatable end effector  
[NASA-CASE-MFS-23696-1] c 54 N81-26718

**SPACE TRANSPORTATION SYSTEM**  
Coupling device for moving vehicles  
[NASA-CASE-GSC-12322-1] c 37 N80-14398

Three stage rocket vehicle with parallel staging  
[NASA-CASE-MFS-25878-1] c 18 N84-27787

**SPACE VEHICLE CHECKOUT PROGRAM**  
Hydraulic support for dynamic testing Patent  
[NASA-CASE-XMF-03248] c 11 N71-10604

Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15566

High pressure gas filter system Patent  
[NASA-CASE-MFS-12806] c 14 N71-17588

**SPACEBORNE TELESCOPES**  
Anastigmatic three-mirror telescope  
[NASA-CASE-MFS-23675-1] c 89 N79-10969

Cooled echelle grating spectrometer --- for space telescope applications  
[NASA-CASE-NPO-14372-1] c 35 N80-26635

Extended range X-ray telescope  
[NASA-CASE-MFS-25282-1] c 34 N83-19015

Spectral slicing X-ray telescope with variable magnification  
[NASA-CASE-MFS-25942-1] c 89 N84-17084

Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860

Dual aperture multispectral Schmidt objective  
[NASA-CASE-GSC-12756-1] c 74 N84-23248

**SPACECRAFT**  
Interconnection of solar cells Patent  
[NASA-CASE-XGS-01475] c 03 N71-11058

Attitude sensor for space vehicles Patent  
[NASA-CASE-XLA-00793] c 21 N71-22880

Solar cell and circuit array and process for nullifying magnetic fields Patent  
[NASA-CASE-XGS-03390] c 03 N71-23187

High efficiency ionizer assembly Patent  
[NASA-CASE-XNP-01954] c 28 N71-28850

Altitude simulation chamber for rocket engine testing  
[NASA-CASE-MFS-20620] c 11 N72-27282

Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609

**SPACECRAFT ANTENNAS**  
Parasitic probe antenna Patent  
[NASA-CASE-XKS-09348] c 09 N71-13521

Millimeter wave antenna system Patent Application  
[NASA-CASE-GSC-10949-1] c 07 N71-28965

Integrated thermoelectric generator/space antenna combination  
[NASA-CASE-XER-09521] c 09 N72-12136

Omnidirectional slot antenna for mounting on cylindrical space vehicle  
[NASA-CASE-LAR-10163-1] c 09 N72-25247

Singly-curved reflector for use in high-gain antennas  
[NASA-CASE-NPO-11361] c 07 N72-32169

Collapsible structure for an antenna reflector  
[NASA-CASE-NPO-11751] c 07 N73-24176

Multi-channel rotating optical interface for data transmission  
[NASA-CASE-NPO-14066-1] c 74 N79-34011

Antenna deployment mechanism for use with a spacecraft --- extensible and retractable telescopic antenna mast  
[NASA-CASE-GSC-12331-1] c 18 N80-14183

Spiral slotted phased antenna array  
[NASA-CASE-MSC-18532-1] c 32 N82-27558

**SPACECRAFT CABIN ATMOSPHERES**  
Thermal control wall panel Patent  
[NASA-CASE-XLA-01243] c 33 N71-22792

Nonflammable coating compositions --- for use in high oxygen environments  
[NASA-CASE-MFS-20486-2] c 27 N74-17283

Regenerable device for scrubbing breathable air of CO<sub>2</sub> and moisture without special heat exchanger equipment  
[NASA-CASE-MSC-14771-1] c 54 N77-32722

**SPACECRAFT COMMUNICATION**  
Time division multiplex system  
[NASA-CASE-XGS-05918] c 07 N69-39974

Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent  
[NASA-CASE-XNP-00911] c 08 N70-41961

Tracking receiver Patent  
[NASA-CASE-XGS-08679] c 10 N71-21473

Omnidirectional microwave spacecraft antenna Patent  
[NASA-CASE-XLA-03114] c 09 N71-22888

VHF/UHF parasitic probe antenna Patent  
[NASA-CASE-XKS-09340] c 07 N71-24614

Rapid sync acquisition system Patent  
[NASA-CASE-NPO-10214] c 10 N71-26577

Turnstile slot antenna  
[NASA-CASE-GSC-11428-1] c 32 N74-20884

Switchable beamwidth monopulse method and system  
[NASA-CASE-GSC-11924-1] c 33 N76-27472

Antenna feed system for receiving circular polarization and transmitting linear polarization  
[NASA-CASE-NPO-14362-1] c 32 N80-16281

Common data buffer system --- communication with computational equipment utilized in spacecraft operations  
[NASA-CASE-KSC-11048-1] c 62 N81-24779

Apparatus and method for determining the position of a radiant energy source  
[NASA-CASE-GSC-12147-1] c 32 N81-27341

Electronic consscanning spacecraft communication system  
[NASA-CASE-NPO-15899-1] c 32 N83-19970

**SPACECRAFT COMPONENTS**  
Electrical connector Patent Application  
[NASA-CASE-MFS-14741] c 09 N70-20737

Vibration damping system Patent  
[NASA-CASE-XMS-01620] c 23 N71-15673

Intermittent type silica gel adsorption refrigerator Patent  
[NASA-CASE-XNP-00920] c 15 N71-15906

Omni-directional anisotropic molecular trap Patent  
[NASA-CASE-XGS-00783] c 30 N71-17788

Spacecraft airlock Patent  
[NASA-CASE-XLA-02050] c 31 N71-22968

Docking structure for spacecraft Patent  
[NASA-CASE-XMF-05941] c 31 N71-23912

Redundant actuating mechanism Patent  
[NASA-CASE-XGS-08718] c 15 N71-24600

Space simulator Patent  
[NASA-CASE-NPO-10141] c 11 N71-24984

Spacecraft Patent  
[NASA-CASE-MSC-13047-1] c 31 N71-25434

Peak acceleration limiter for vibrational tester Patent  
[NASA-CASE-NPO-10556] c 14 N71-27185

Solid state thermal control polymer coating Patent  
[NASA-CASE-XLA-01745] c 33 N71-28903

Scientific experiment flexible mount  
[NASA-CASE-MSC-12372-1] c 31 N72-25842

Airlock  
[NASA-CASE-MFS-20922-1] c 18 N74-22136

Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft  
[NASA-CASE-MFS-21680-1] c 18 N74-27397

Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041

High temperature penetrator assembly with bayonet plug and ramp-activated lock  
[NASA-CASE-MSC-18526-1] c 37 N82-24494

Aerospace vehicle  
[NASA-CASE-LAR-13155-1] c 18 N84-20628

Apparatus for releasably connecting first and second objects in predetermined space relationship  
[NASA-CASE-MSC-18969-1] c 18 N84-22605

**SPACECRAFT CONFIGURATIONS**

Inflatable honeycomb Patent  
[NASA-CASE-XLA-00204] c 32 N70-36536

Space and atmospheric reentry vehicle Patent  
[NASA-CASE-XGS-00260] c 31 N70-37924

Spacecraft separation system for spinning vehicles and/or payloads Patent  
[NASA-CASE-XLA-02132] c 31 N71-10582

Space shuttle vehicle and system  
[NASA-CASE-MSC-12433] c 31 N73-14854

Space vehicle  
[NASA-CASE-MFS-22734-1] c 18 N75-19329

Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612

Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784

**SPACECRAFT CONSTRUCTION MATERIALS**  
Pressurized cell micrometeoroid detector Patent  
[NASA-CASE-XLA-00936] c 14 N71-14996

Fluid impervious barrier including liquid metal alloy and method of making same Patent  
[NASA-CASE-XNP-08881] c 17 N71-28747

Method of making a composite sandwich lattice structure  
[NASA-CASE-LAR-11898-2] c 24 N78-17149

Fixture for environmental exposure of structural materials under compression load  
[NASA-CASE-LAR-12602-1] c 39 N83-32081

**SPACECRAFT CONTROL**  
Light sensitive digital aspect sensor Patent  
[NASA-CASE-XGS-00359] c 14 N70-34158

Space vehicle attitude control Patent  
[NASA-CASE-XNP-00465] c 21 N70-35395

Parachute glider Patent  
[NASA-CASE-XLA-00898] c 02 N70-36804

Attitude control for spacecraft Patent  
[NASA-CASE-XNP-00294] c 21 N70-36938

Attitude orientation of spin-stabilized space vehicles Patent  
[NASA-CASE-XLA-00281] c 21 N70-36943

Hypersonic reentry vehicle Patent  
[NASA-CASE-XMS-04142] c 31 N70-41631

Roll attitude star sensor system Patent  
[NASA-CASE-XNP-01307] c 21 N70-41856

Canopus detector including automotive gain control of photomultiplier tube Patent  
[NASA-CASE-XNP-03914] c 21 N71-10771

Spacecraft experiment pointing and attitude control system Patent  
[NASA-CASE-XLA-05464] c 21 N71-14132

Attitude control system Patent  
[NASA-CASE-XGS-04393] c 21 N71-14159

Reactance control system Patent  
[NASA-CASE-XMF-01598] c 21 N71-15583

Spacecraft attitude detection system by stellar reference Patent  
[NASA-CASE-XGS-03431] c 21 N71-15642

Inertial reference apparatus Patent  
[NASA-CASE-XAC-03107] c 23 N71-16098

Construction and method of arranging a plurality of ion engines to form a cluster Patent  
[NASA-CASE-XNP-02923] c 28 N71-23081

Ion beam deflector Patent  
[NASA-CASE-LEW-10689-1] c 28 N71-26173

Heated porous plug microthruster  
[NASA-CASE-GSC-10640-1] c 28 N72-18766

Flight control system  
[NASA-CASE-MSC-13397-1] c 21 N72-25595

All sky pointing attitude control system  
[NASA-CASE-ARC-10716-1] c 35 N77-20399

**SPACECRAFT DESIGN**  
Lunar landing flight research vehicle Patent  
[NASA-CASE-XFR-00929] c 31 N70-34966

Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664

Spacecraft radiator cover Patent  
[NASA-CASE-MSC-12049] c 31 N71-16080

Method and apparatus for securing to a spacecraft Patent  
[NASA-CASE-MFS-11133] c 31 N71-18222

Aerodynamic protection for space flight vehicles Patent  
[NASA-CASE-XNP-02507] c 31 N71-17679

Self supporting space vehicle Patent  
[NASA-CASE-XLA-00117] c 31 N71-17680

Multi-mission module Patent  
[NASA-CASE-XMF-01543] c 31 N71-17730

Docking structure for spacecraft Patent  
[NASA-CASE-XMF-05941] c 31 N71-23912

Spacecraft Patent  
[NASA-CASE-MSC-13047-1] c 31 N71-25434

Emergency earth orbital escape device  
[NASA-CASE-MSC-13281] c 31 N72-18859



- Space vehicle  
[NASA-CASE-MFS-22734-1] c 18 N75-19329
- Space vehicle system  
[NASA-CASE-MSC-12561-1] c 18 N76-17185
- Method and apparatus for neutralizing potentials induced on spacecraft surfaces  
[NASA-CASE-GSC-11963-1] c 33 N77-10429
- Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612
- SPACECRAFT DOCKING**
- Expanding center probe and drogue Patent  
[NASA-CASE-XMS-03613] c 31 N71-16346
- Docking structure for spacecraft Patent  
[NASA-CASE-XMF-05941] c 31 N71-23912
- Latching mechanism Patent  
[NASA-CASE-MSC-15474-1] c 15 N71-26162
- Docking structure for spacecraft  
[NASA-CASE-MFS-20863] c 31 N73-26876
- Latch mechanism  
[NASA-CASE-MSC-12549-1] c 37 N74-27903
- Spacecraft docking and alignment system — using television camera system  
[NASA-CASE-MSC-12559-1] c 18 N76-14186
- Multiple in-line docking capability for rotating space stations  
[NASA-CASE-MFS-20855-1] c 15 N77-10112
- Combined docking and grasping device  
[NASA-CASE-MFS-23088-1] c 37 N77-23483
- Terminal guidance sensor system — space shuttle coupling to orbiting satellites  
[NASA-CASE-NPO-14521-1] c 37 N81-27519
- Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303
- Apparatus for releasably connecting first and second objects in predetermined space relationship  
[NASA-CASE-MSC-18969-1] c 18 N84-22605
- Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612
- Rotatable electric cable connecting system  
[NASA-CASE-GSC-12899-1] c 33 N84-29085
- SPACECRAFT ELECTRONIC EQUIPMENT**
- Dynamic Doppler simulator Patent  
[NASA-CASE-XMS-05454-1] c 07 N71-12391
- Vacuum deposition apparatus Patent  
[NASA-CASE-XMF-01667] c 15 N71-17647
- Nose cone mounted heat resistant antenna Patent  
[NASA-CASE-XMS-04312] c 07 N71-22984
- Electrical self-aligning connector — orbital service vehicles  
[NASA-CASE-MFS-25211-2] c 33 N84-14423
- Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612
- SPACECRAFT ENVIRONMENTS**
- Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203
- Quick disconnect latch and handle combination Patent  
[NASA-CASE-MFS-11132] c 15 N71-17649
- Dual solid cryogenics for spacecraft refrigeration Patent  
[NASA-CASE-GSC-10188-1] c 23 N71-24725
- Dual stage check valve  
[NASA-CASE-MSC-13587-1] c 15 N73-30459
- Metering gun for dispensing precisely measured charges of fluid  
[NASA-CASE-MFS-21163-1] c 54 N74-17853
- Automatic thermal switch — spacecraft applications  
[NASA-CASE-GSC-12553-1] c 34 N83-28356
- SPACECRAFT GUIDANCE**
- Ejection unit Patent  
[NASA-CASE-XNP-00676] c 15 N70-38996
- Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688
- Solar vane actuator Patent  
[NASA-CASE-XNP-05535] c 14 N71-23040
- Azimuth laying system Patent  
[NASA-CASE-XMF-01669] c 21 N71-23289
- Hermetic sealed vibration damper Patent  
[NASA-CASE-MSC-10959] c 15 N71-26243
- Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376
- SPACECRAFT INSTRUMENTS**
- Mechanical coordinate converter Patent  
[NASA-CASE-XNP-00614] c 14 N70-36907
- Air bearing Patent  
[NASA-CASE-XMF-00339] c 15 N70-39896
- Folding boom assembly Patent  
[NASA-CASE-XGS-00938] c 32 N70-41367
- Pressurized cell micrometeoroid detector Patent  
[NASA-CASE-XLA-00936] c 14 N71-14996
- Guidance and maneuver analyzer Patent  
[NASA-CASE-XNP-09572] c 14 N71-15621
- Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02184] c 15 N71-20813
- Optical projector system Patent  
[NASA-CASE-XNP-03853] c 23 N71-21882
- Combined optical attitude and altitude indicating instrument Patent  
[NASA-CASE-XLA-01907] c 14 N71-23268
- Method and apparatus for mapping planets  
[NASA-CASE-NPO-11001] c 07 N72-21118
- Spacecraft attitude control method and apparatus  
[NASA-CASE-HQN-10439] c 21 N72-21624
- Pump for delivering heated fluids  
[NASA-CASE-NPO-11417] c 15 N73-24513
- Deployable pressurized cell structure for a micrometeoroid detector  
[NASA-CASE-LAR-10295-1] c 35 N74-21062
- Distributed-switch Dicke radiometers  
[NASA-CASE-GSC-12219-1] c 35 N80-18359
- Real-time multiple-look synthetic aperture radar processor for spacecraft applications  
[NASA-CASE-NPO-14054-1] c 32 N82-12297
- Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541
- Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574
- Vibration isolation and pressure compensation apparatus for sensitive instrumentation  
[NASA-CASE-LAR-12728-1] c 35 N83-32026
- SPACECRAFT LANDING**
- Non-reusable kinetic energy absorber Patent  
[NASA-CASE-XLE-00810] c 15 N70-34861
- Foam generator Patent  
[NASA-CASE-XLA-00838] c 03 N70-36778
- Discrete local altitude sensing device Patent  
[NASA-CASE-XMS-03792] c 14 N70-41812
- SPACECRAFT LAUNCHING**
- Passive caging mechanism Patent  
[NASA-CASE-GSC-10306-1] c 15 N71-24694
- Disconnect unit  
[NASA-CASE-NPO-11330] c 33 N73-26958
- SPACECRAFT MODELS**
- Apparatus for measuring electric field strength on the surface of a model vehicle Patent  
[NASA-CASE-XLE-02038] c 09 N71-16086
- SPACECRAFT MODULES**
- Radial module space station Patent  
[NASA-CASE-XMS-01906] c 31 N70-41373
- Multi-mission module Patent  
[NASA-CASE-XMF-01543] c 31 N71-17730
- Spacecraft Patent  
[NASA-CASE-MSC-13047-1] c 31 N71-25434
- Thermal control system for a spacecraft modular housing  
[NASA-CASE-GSC-11018-1] c 31 N73-30829
- SPACECRAFT MOTION**
- Magnetic suspension and pointing system — on a carrier vehicle  
[NASA-CASE-LAR-11889-1] c 35 N79-26372
- SPACECRAFT POSITION INDICATORS**
- Device for determining relative angular position between a spacecraft and a radiation emitting celestial body  
[NASA-CASE-GSC-11444-1] c 14 N73-28490
- Spacecraft attitude sensor  
[NASA-CASE-GSC-10890-1] c 21 N73-30640
- SPACECRAFT POWER SUPPLIES**
- Spacecraft battery seals  
[NASA-CASE-XGS-03864] c 15 N69-24320
- Space vehicle electrical system Patent  
[NASA-CASE-XMF-00517] c 03 N70-34157
- Ionospheric battery Patent  
[NASA-CASE-XGS-01593] c 03 N70-35408
- Generator for a space power system Patent  
[NASA-CASE-XLE-04250] c 09 N71-20446
- Monostable multivibrator  
[NASA-CASE-GSC-10082-1] c 10 N72-20221
- Stacked solar cell arrays  
[NASA-CASE-NPO-11771] c 03 N73-20040
- Thermoelectric power system — for spacecraft  
[NASA-CASE-MFS-22002-1] c 44 N78-16612
- Solar energy power system  
[NASA-CASE-MFS-21628-2] c 44 N76-23675
- Module failure isolation circuit for paralleled inverters — preventing system failure during power conditioning for spacecraft applications  
[NASA-CASE-NPO-14000-1] c 33 N79-24254
- Linear magnetic motor/generator — to generate electric energy using magnetic flux for spacecraft power supply  
[NASA-CASE-GSC-12518-1] c 33 N82-24421
- Solar driven liquid metal MHD power generator  
[NASA-CASE-LAR-12495-1] c 44 N83-28573
- Rotatable electric cable connecting system  
[NASA-CASE-GSC-12899-1] c 33 N84-29085
- Bi-directional control system for energy flow in a solar powered flywheel  
[NASA-CASE-MFS-25978-1] c 44 N84-32913
- SPACECRAFT PROPULSION**
- Colloid propulsion method and apparatus Patent  
[NASA-CASE-XLE-00817] c 28 N70-33265
- Trajectory-correction propulsion system Patent  
[NASA-CASE-XNP-01104] c 28 N70-39931
- Ion engine casing construction and method of making same Patent  
[NASA-CASE-XNP-06942] c 28 N71-23293
- Voice operated controller Patent  
[NASA-CASE-XLA-04063] c 31 N71-33160
- Solid propellant motor  
[NASA-CASE-NPO-11458A] c 20 N78-32179
- General purpose rocket furnace  
[NASA-CASE-MFS-23460-1] c 12 N79-26075
- Speed control device for a heavy duty shaft — solar sails for spacecraft propulsion  
[NASA-CASE-NPO-14170-1] c 37 N81-15364
- SPACECRAFT RADIATORS**
- Thermal control canister  
[NASA-CASE-GSC-12253-1] c 34 N79-31523
- Thermal control system — removing waste heat from industrial process spacecraft  
[NASA-CASE-GSC-12771-1] c 34 N84-14461
- Radiative cooler — spacecraft radiators  
[NASA-CASE-NPO-15465-1] c 34 N84-22903
- Multi-leg heat pipe evaporator  
[NASA-CASE-MSC-20812-1] c 34 N84-32748
- SPACECRAFT RECOVERY**
- Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-36410
- Wing deployment method and apparatus Patent  
[NASA-CASE-XMS-00907] c 02 N70-41630
- Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303
- SPACECRAFT REENTRY**
- Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938
- Event recorder Patent  
[NASA-CASE-XLA-01832] c 14 N71-21006
- SPACECRAFT SHIELDING**
- Aerodynamic protection for space flight vehicles Patent  
[NASA-CASE-XNP-02507] c 31 N71-17679
- Isothermal cover with thermal reservoirs Patent  
[NASA-CASE-MFS-20355] c 33 N71-25533
- Stabilized zinc oxide coating compositions Patent  
[NASA-CASE-XMF-07770-2] c 18 N71-26772
- Electrically conductive thermal control coatings  
[NASA-CASE-GSC-12207-1] c 24 N79-14156
- Thermal insulation protection means  
[NASA-CASE-MSC-12737-1] c 24 N79-25142
- Thermal barrier pressure seal — shielding junctions between spacecraft control surfaces and structures  
[NASA-CASE-MSC-18134-1] c 37 N81-15363
- High temperature glass thermal control structure and coating — for application to spacecraft reusable heat shielding  
[NASA-CASE-ARC-11164-1] c 44 N83-34448
- Variable anodic thermal control coating  
[NASA-CASE-LAR-12719-1] c 44 N83-34449
- Mechanical fastener  
[NASA-CASE-LAR-12738-2] c 18 N84-15180
- Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886
- SPACECRAFT STABILITY**
- Reaction wheel scanner Patent  
[NASA-CASE-XGS-02629] c 14 N71-21082
- Attitude sensor  
[NASA-CASE-LAR-10586-1] c 19 N74-15089
- Angular momentum control device used for stabilization of space vehicles and the like  
[NASA-CASE-LAR-11051-1] c 15 N76-14158
- Tetherline system for orbiting satellites  
[NASA-CASE-MFS-23564-1] c 15 N78-25119
- Active nutation controller  
[NASA-CASE-GSC-12273-1] c 35 N80-21719
- Method of damping nutation motion with minimum spin axis attitude disturbance  
[NASA-CASE-GSC-12551-1] c 18 N83-28064
- SPACECRAFT STRUCTURES**
- Collapsible loop antenna for space vehicle Patent  
[NASA-CASE-XMF-00437] c 07 N70-40202
- Electro-optical alignment control system Patent  
[NASA-CASE-XMF-00908] c 14 N70-40238
- Spacecraft radiator cover Patent  
[NASA-CASE-MSC-12049] c 31 N71-16080
- Satellite appendage tie down cord Patent  
[NASA-CASE-XGS-02554] c 31 N71-21064
- Thermal control panel Patent  
[NASA-CASE-XLA-07728] c 33 N71-22890
- Inflatable tether Patent  
[NASA-CASE-XMS-10993] c 15 N71-28936

- Delayed simultaneous release mechanism  
[NASA-CASE-GSC-10814-1] c 03 N73-20039
- Pressurized panel  
[NASA-CASE-XLA-08916-2] c 14 N73-28487
- Structural heat pipe -- for spacecraft wall thermal insulation system  
[NASA-CASE-GSC-11619-1] c 34 N75-12222
- Auger attachment method for insulation -- of spacecraft  
[NASA-CASE-MSC-12615-1] c 37 N76-19437
- Particulate and solar radiation stable coating for spacecraft  
[NASA-CASE-LAR-10805-2] c 34 N77-18382
- Diced tile thermal protection for spacecraft  
[NASA-CASE-MSC-18366-1] c 24 N79-23142
- Pneumatic inflatable end effector  
[NASA-CASE-MFS-23696-1] c 54 N81-26718
- Curved cap corrugated sheet  
[NASA-CASE-LAR-12884-1] c 18 N84-33450
- SPACECRAFT TELEVISION**
- Electrically-operated rotary shutter Patent  
[NASA-CASE-XNP-00637] c 14 N70-40273
- Television signal scan rate conversion system Patent  
[NASA-CASE-XMS-07168] c 07 N71-11300
- Optical conversion method -- for spacecraft television  
[NASA-CASE-MSC-12618-1] c 74 N78-17865
- SPACECRAFT TRACKING**
- Ranging system Patent  
[NASA-CASE-NPO-10066] c 09 N71-18598
- Deep space monitor communication satellite system Patent  
[NASA-CASE-XAC-06029-1] c 31 N71-24813
- Optical tracking mount Patent  
[NASA-CASE-MFS-14017] c 14 N71-26627
- Orbital and entry tracking accessory for globes -- to provide range requirements for reentry vehicles to any landing site  
[NASA-CASE-LAR-10626-1] c 19 N74-21015
- Conical scan tracking system employing a large antenna  
[NASA-CASE-NPO-14009-1] c 32 N79-13214
- SPACECREWS**
- Orbital escape device Patent  
[NASA-CASE-XMS-08162] c 31 N71-28851
- SPACELAB PAYLOADS**
- Hemispherical latching apparatus for payload retention  
[NASA-CASE-MFS-25837] c 16 N82-31398
- SPALLATION**
- Method of producing I-123 -- by bombardment of cesium causing spallation  
[NASA-CASE-LEW-11390-2] c 25 N76-27383
- SPALLING**
- Diamondlike flakes  
[NASA-CASE-LEW-13837-2] c 24 N84-22696
- SPARK CHAMBERS**
- Laser measuring system for incremental assemblies -- measuring wire-wrapped frame assemblies in spark chambers  
[NASA-CASE-GSC-12321-1] c 36 N82-16396
- Inorganic spark chamber frame and method of making the same  
[NASA-CASE-GSC-12354-1] c 35 N82-24471
- SPARK GAPS**
- Protective circuit of the spark gap type  
[NASA-CASE-XAC-08981] c 09 N69-39897
- Measurement of time differences between luminous events Patent  
[NASA-CASE-XLA-01987] c 23 N71-23976
- SPARK IGNITION**
- High temperature spark plug Patent  
[NASA-CASE-XLE-00660] c 28 N70-39925
- Plasma igniter for internal combustion engine  
[NASA-CASE-NPO-13828-1] c 37 N79-11405
- SPARK PLUGS**
- High temperature spark plug Patent  
[NASA-CASE-XLE-00660] c 28 N70-39925
- SPATIAL DISTRIBUTION**
- Propellant mass distribution metering apparatus Patent  
[NASA-CASE-NPO-10185] c 10 N71-26339
- SPATIAL FILTERING**
- Spatial filter for Q-switched lasers  
[NASA-CASE-LEW-12164-1] c 36 N77-32478
- SPECTRAL BANDS**
- Multispectral linear array multiband selection device  
[NASA-CASE-GSC-12911-1] c 35 N84-25016
- SPECTRAL CORRELATION**
- Correlation spectrometer having high resolution and multiplexing capability  
[NASA-CASE-NPO-15558-1] c 35 N84-34705
- SPECTRAL REFLECTANCE**
- Single reflector interference spectrometer and drive system therefor  
[NASA-CASE-NPO-11932-1] c 35 N74-23040
- SPECTRAL SIGNATURES**
- Multispectral imaging and analysis system -- using charge coupled devices and linear arrays  
[NASA-CASE-NPO-13691-1] c 43 N79-17288
- SPECTROMETERS**
- Photoelectric energy spectrometer Patent  
[NASA-CASE-XNP-04161] c 14 N71-15599
- Variable frequency nuclear magnetic resonance spectrometer Patent  
[NASA-CASE-XNP-09830] c 14 N71-26266
- Maksutov spectrograph Patent  
[NASA-CASE-XLA-10402] c 14 N71-29041
- Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer  
[NASA-CASE-XNP-05231] c 14 N73-28491
- Compton scatter attenuation gamma ray spectrometer  
[NASA-CASE-MFS-21441-1] c 14 N73-30392
- Mossbauer spectrometer radiation detector  
[NASA-CASE-LAR-11155-1] c 35 N74-15091
- Single reflector interference spectrometer and drive system therefor  
[NASA-CASE-NPO-11932-1] c 35 N74-23040
- Spectrometer integrated with a facsimile camera  
[NASA-CASE-LAR-11207-1] c 35 N75-19613
- Resonant waveguide stark cell -- using microwave spectrometers  
[NASA-CASE-LAR-11352-1] c 33 N75-26245
- Ion and electron detector for use in an ICR spectrometer  
[NASA-CASE-NPO-13479-1] c 35 N77-10492
- Frequency-scanning particle size spectrometer  
[NASA-CASE-NPO-13606-2] c 35 N80-18364
- Velocity servo for continuous scan Fourier interference spectrometer  
[NASA-CASE-NPO-14093-1] c 35 N80-20563
- Visible and infrared polarization ratio spectrophotometer  
[NASA-CASE-LAR-12285-1] c 35 N80-28687
- Integrated optics in an electrically scanned imaging Fourier transform spectrometer  
[NASA-CASE-NPO-15844-1] c 74 N83-12992
- Portable reflectance spectrometer  
[NASA-CASE-NPO-13556-1] c 35 N84-33766
- Correlation spectrometer having high resolution and multiplexing capability  
[NASA-CASE-NPO-15558-1] c 35 N84-34705
- SPECTROPHOTOMETERS**
- Apparatus for producing three-dimensional recordings of fluorescence spectra Patent  
[NASA-CASE-XGS-01231] c 14 N70-41676
- High resolution Fourier interferometer-spectrophotopolarimeter  
[NASA-CASE-NPO-13604-1] c 35 N78-31490
- Differential photoacoustic absorption detector  
[NASA-CASE-NPO-13759-1] c 74 N78-17867
- SPECTRORADIOMETERS**
- Compact spectroradiometer  
[NASA-CASE-HQN-10683] c 14 N71-34389
- SPECTROSCOPIC ANALYSIS**
- Spectroscopic equipment using a slender cylindrical reflector as a substitute for a slit Patent  
[NASA-CASE-XGS-08269] c 23 N71-26206
- SPECTRUM ANALYSIS**
- Photoelectric energy spectrometer Patent  
[NASA-CASE-XNP-04161] c 14 N71-15599
- Spectral method for monitoring atmospheric contamination of inert-gas welding shields Patent  
[NASA-CASE-XMF-02039] c 15 N71-15871
- Method and apparatus for high resolution spectral analysis  
[NASA-CASE-NPO-10748] c 08 N72-20177
- Stark cell photoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015
- SPECULAR REFLECTION**
- Real time reflectometer -- measurement of specular reflectance  
[NASA-CASE-MFS-23118-1] c 35 N77-31465
- SPEECH RECOGNITION**
- Speech analyzer  
[NASA-CASE-GSC-11898-1] c 32 N77-30309
- SPEED CONTROL**
- System for maintaining a motor at a predetermined speed utilizing digital feedback means Patent  
[NASA-CASE-XMF-06892] c 09 N71-24805
- Optimal control system for an electric motor driven vehicle  
[NASA-CASE-NPO-11210] c 11 N72-20244
- Two speed drive system -- mechanical device for changing speed on rotating vehicle wheel  
[NASA-CASE-MFS-20645-1] c 37 N74-23070
- Low speed phase-locked speed control system -- for brushless dc motor  
[NASA-CASE-GSC-11127-1] c 09 N75-24758
- Speed control device for a heavy duty shaft -- solar sails for spacecraft propulsion  
[NASA-CASE-NPO-14170-1] c 37 N81-15364
- Variable speed drive  
[NASA-CASE-GSC-12643-1] c 37 N83-26078
- SPEED REGULATORS**
- A dc motor speed control system Patent  
[NASA-CASE-MFS-14610] c 09 N71-28886
- SPHERES**
- Guidance and maneuver analyzer Patent  
[NASA-CASE-XNP-09572] c 14 N71-15621
- Radar calibration sphere  
[NASA-CASE-XLA-11154] c 07 N72-21117
- Method of forming frozen spheres in a force-free drop tower  
[NASA-CASE-NPO-14845-1] c 27 N82-28442
- Sphere forming method and apparatus  
[NASA-CASE-NPO-15070-1] c 31 N83-35176
- Optical multiple sample vacuum integrating sphere  
[NASA-CASE-GSC-12849-1] c 74 N84-15960
- Contactless pellet fabrication  
[NASA-CASE-NPO-15592-1] c 71 N84-16940
- SPHERICAL SHELLS**
- Electrode and insulator with shielded dielectric junction  
[NASA-CASE-XLE-03778] c 09 N69-21542
- Spherical measurement device  
[NASA-CASE-XLA-06683] c 14 N72-28436
- SPHERICAL TANKS**
- Spherical tank gauge Patent  
[NASA-CASE-XMS-06236] c 14 N71-21007
- SPHERICAL WAVES**
- Shock wave convergence apparatus  
[NASA-CASE-MFS-20890] c 14 N72-22439
- SPHYGMOGRAPHY**
- Logic-controlled occlusive cuff system  
[NASA-CASE-MSC-14836-1] c 52 N82-11770
- SPIKE NOZZLES**
- Aerodynamic spike nozzle Patent  
[NASA-CASE-XGS-01143] c 31 N71-15647
- SPIKE POTENTIALS**
- Elimination of current spikes in buck power converters  
[NASA-CASE-NPO-14505-1] c 33 N81-18393
- SPILLING**
- A spillage detector for liquid chromatography systems  
[NASA-CASE-MSC-20206-1] c 25 N83-29325
- SPIN DYNAMICS**
- Nutation damper  
[NASA-CASE-GSC-11205-1] c 15 N73-25513
- Stabilization of He2(a 3 Sigma u+) molecules in liquid helium by optical pumping for vacuum UV laser  
[NASA-CASE-NPO-13993-1] c 72 N79-13826
- SPIN REDUCTION**
- Optical spin compensator  
[NASA-CASE-XGS-02401] c 14 N69-27485
- Despin weight release Patent  
[NASA-CASE-XLA-00679] c 15 N70-38601
- Stretch de-spin mechanism Patent  
[NASA-CASE-XGS-00619] c 30 N70-40016
- Spacecraft separation system for spinning vehicles and/or payloads Patent  
[NASA-CASE-XLA-02132] c 31 N71-10582
- Method and means for damping nutation in a satellite  
[NASA-CASE-XMF-00442] c 31 N71-10747
- SPIN STABILIZATION**
- Dynamic precession damper for spin stabilized vehicles Patent  
[NASA-CASE-XLA-01989] c 21 N70-34295
- Attitude orientation of spin-stabilized space vehicles Patent  
[NASA-CASE-XLA-00281] c 21 N70-36943
- Spacecraft attitude detection system by stellar reference Patent  
[NASA-CASE-XGS-03431] c 21 N71-15642
- Cartwheel satellite synchronization system Patent  
[NASA-CASE-XGS-05579] c 31 N71-15676
- Velocity package Patent  
[NASA-CASE-XLA-01339] c 31 N71-15692
- Passive dual spin misalignment compensators -- gyro-stabilized device  
[NASA-CASE-GSC-11479-1] c 35 N74-28097
- Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft  
[NASA-CASE-LAR-10753-1] c 08 N74-30421
- Active nutation controller  
[NASA-CASE-GSC-12273-1] c 35 N80-21719
- Thrust augmented spin recovery device  
[NASA-CASE-LAR-11970-2] c 08 N81-19130
- Scanner -- photography from a spin stabilized synchronous satellite  
[NASA-CASE-GSC-12032-2] c 43 N82-13465
- SPINDLES**
- Variable contour securing system  
[NASA-CASE-MSC-16270-1] c 37 N78-27423

## SPINE

Spine immobilization apparatus  
[NASA-CASE-ARC-11167-1] c 52 N81-25662

## SPINNERS

Head for high speed spinner having a vacuum chuck  
--- holding silicon dioxide chips for etching  
[NASA-CASE-NPO-15227-1] c 37 N81-33482

## SPIRAL ANTENNAS

Spiral slotted phased antenna array  
[NASA-CASE-MS-C-18532-1] c 32 N82-27558

## SPIRAL WRAPPING

Adjustable tension wire guide Patent  
[NASA-CASE-XMS-02383] c 15 N71-15918  
Continuous self-locking spiral wound seal --- for  
maintaining pressure between chambers in cryogenic wind  
tunnels  
[NASA-CASE-LAR-12315-1] c 37 N82-24490  
Modified spiral wound retaining ring  
[NASA-CASE-LAR-12381-1] c 37 N83-19091

## SPIRALS (CONCENTRATORS)

Spiral groove seal --- for hydraulic rotating shaft  
[NASA-CASE-LEW-10326-3] c 37 N74-10474

## SPIO METERS

Balanced bellows spirometer  
[NASA-CASE-XAR-01547] c 05 N69-21473

## SP LICING

Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859  
Low loss splicing method for single-mode optical fiber  
[NASA-CASE-NPO-16294-1] c 74 N84-33179

## SPLINTS

Stretcher Patent  
[NASA-CASE-XMF-06589] c 05 N71-23159

## SPOILERS

Hydraulic actuator mechanism to control aircraft spoiler  
movements through dual input commands  
[NASA-CASE-LAR-12412-1] c 08 N82-24205

## SPORES

Lyophilized spore dispenser  
[NASA-CASE-LAR-10544-1] c 37 N74-13178

## SPOT WELDS

Electric arc welding Patent  
[NASA-CASE-XMF-00392] c 15 N70-34814  
Automatic closed circuit television arc guidance control  
Patent  
[NASA-CASE-MFS-13048] c 07 N71-19433

## SPRAY CHARACTERISTICS

Constant-output atomizer --- Inhalation therapy and  
aerosol research  
[NASA-CASE-MFS-25631-1] c 34 N84-12406

## SPRAY NOZZLES

Rocket injector head  
[NASA-CASE-XMF-04592-1] c 20 N79-21125  
Fire extinguishing apparatus having a slidable mass for  
a penetrator nozzle --- for penetrating aircraft and shuttle  
orbiter skin  
[NASA-CASE-KSC-11064-1] c 31 N81-14137  
Controlled overspray spray nozzle  
[NASA-CASE-MFS-25139-1] c 34 N82-13376

## SPRAYED COATINGS

Method of making a diffusion bonded refractory coating  
Patent  
[NASA-CASE-XLE-01604-2] c 15 N71-15610  
Thermal protection ablation spray system Patent  
[NASA-CASE-XLA-04251] c 18 N71-26100  
Peen plating  
[NASA-CASE-GSC-11163-1] c 15 N73-32360  
Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290  
Spray coating apparatus having a rotatable workpiece  
holder  
[NASA-CASE-ARC-11110-1] c 37 N82-24492  
High temperature emittance coatings and coating  
compositions --- repairing damaged space shuttle tiles in  
space  
[NASA-CASE-MS-C-18851-1] c 27 N82-26460  
Spray applicator for spraying coatings and other fluids  
in space  
[NASA-CASE-MS-C-18852-1] c 37 N82-28640  
Thermal barrier coating system having improved  
adhesion  
[NASA-CASE-LEW-1335901] c 27 N83-31855  
Oxidation resistant slurry coating for carbon-based  
materials  
[NASA-CASE-LEW-13923-1] c 24 N84-16266  
Method of coating a substrate with a rapidly solidified  
metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670  
Improved thermal barrier coating system  
[NASA-CASE-LEW-14057-1] c 27 N84-33595

## SPRAYERS

External liquid-spray cooling of turbine blades Patent  
[NASA-CASE-XLE-00037] c 28 N70-33372  
Method and apparatus for attaching physiological  
monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293

Liquid spray cooling method Patent  
[NASA-CASE-XLE-00027] c 33 N71-29152  
Closed loop spray cooling apparatus --- for particle  
accelerator targets  
[NASA-CASE-LEW-11981-1] c 31 N78-17237  
Spray coating apparatus having a rotatable workpiece  
holder  
[NASA-CASE-ARC-11110-1] c 37 N82-24492  
Spray applicator for spraying coatings and other fluids  
in space  
[NASA-CASE-MS-C-18852-1] c 37 N82-28640  
Warm fog dissipation using large volume water sprays  
[NASA-CASE-MFS-25962-1] c 09 N84-32398

## SPRAYING

Aircraft wheel spray drag alleviator Patent  
[NASA-CASE-XLA-01583] c 02 N70-36825  
Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-2] c 34 N79-20336  
Method and apparatus for suppressing ignition  
overpressure in solid rocket propulsion systems  
[NASA-CASE-MFS-25843-1] c 20 N83-17588

## SPREAD SPECTRUM TRANSMISSION

Navigation system and method  
[NASA-CASE-GSC-12508-1] c 04 N84-22546

## SPREADING

Tool attachment for spreading loose elements away from  
work Patent  
[NASA-CASE-XMF-02107] c 15 N71-10809  
Tool for releasing optical elements  
[NASA-CASE-GSC-12794-1] c 37 N83-12434

## SPRINGS (ELASTIC)

Belleville spring assembly with elastic guides  
[NASA-CASE-XNP-09452] c 15 N69-27504  
Multiple Belleville spring assembly Patent  
[NASA-CASE-XNP-00840] c 15 N70-38225  
Switching mechanism with energy storage means  
Patent  
[NASA-CASE-XGS-00473] c 03 N70-38713  
Load cell protection device Patent  
[NASA-CASE-XMS-06782] c 32 N71-15974  
Vibration isolation system using compression springs  
[NASA-CASE-NPO-11012] c 15 N72-11391  
Spring operated accelerator and constant force spring  
mechanism therefor  
[NASA-CASE-ARC-10898-1] c 35 N77-18417  
Natural turbulence electrical power generator --- using  
wave action or random motion  
[NASA-CASE-LAR-11551-1] c 44 N80-29834  
Rotary stepping device with memory metal actuator  
[NASA-CASE-NPO-15482-1] c 37 N83-36484  
Resilient seal ring assembly with spring means applying  
force to wedge member --- cryogenic applications  
[NASA-CASE-MFS-25678-1] c 37 N84-11497  
Unidirectional flexural pivot  
[NASA-CASE-GSC-12622-1] c 37 N84-12492

## SPUTTERING

A method for the deposition of beta-silicon carbide by  
isopitaxy  
[NASA-CASE-ERC-10120] c 26 N69-33482  
Method of forming transparent films of ZnO  
[NASA-CASE-FRC-10019] c 15 N73-12487  
Method and apparatus for sputtering utilizing an  
apertured electrode and a pulsed substrate bias  
[NASA-CASE-LEW-10920-1] c 17 N73-24569  
Sputtering holes with ion beamlets  
[NASA-CASE-LEW-11646-1] c 20 N74-31269  
Multitarget sequential sputtering apparatus  
[NASA-CASE-NPO-13345-1] c 37 N75-19684  
Method of cold welding using ion beam technology  
[NASA-CASE-LEW-12982-1] c 37 N81-19455  
Refractory coatings and method of producing the  
same  
[NASA-CASE-LEW-13169-1] c 26 N82-29415  
Ion sputter textured graphite --- anode collector plates  
in electron tube devices  
[NASA-CASE-LEW-12919-1] c 24 N83-10117  
Mechanical bonding of metal method  
[NASA-CASE-LEW-12941-1] c 26 N83-10170  
Diamondlike flake composites  
[NASA-CASE-LEW-13837-1] c 24 N84-22695  
Method of making an ion beam sputter-etched  
ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095  
Ion sputter textured graphite electrode plates  
[NASA-CASE-LEW-12919-2] c 70 N84-28565

## SQUARE WAVES

High speed phase detector Patent  
[NASA-CASE-XNP-01306-2] c 09 N71-24596

## SQUARES (MATHEMATICS)

Apparatus for computing square roots Patent  
[NASA-CASE-XGS-04768] c 08 N71-19437

## SQUEEZE FILMS

Dual clearance squeeze film damper  
[NASA-CASE-LEW-13506-1] c 07 N84-22562

## SQUIBS

Separation nut Patent  
[NASA-CASE-XGS-01971] c 15 N71-15922

## STABILITY AUGMENTATION

Velocity vector control system augmented with direct  
lift control  
[NASA-CASE-LAR-12268-1] c 08 N81-24106

## STABILITY TESTS

Method and apparatus for checking the stability of a  
setup for making reflection type holograms  
[NASA-CASE-MFS-21455-1] c 35 N74-15146

## STABILIZATION

Ultrastable calibrated light source  
[NASA-CASE-MS-C-12293-1] c 14 N72-27411  
System for stabilizing torque between a balloon and  
gondola  
[NASA-CASE-GSC-11077-1] c 02 N73-13008  
Suppression of flutter  
[NASA-CASE-LAR-10682-1] c 02 N73-26004  
Radiation hardening of MOS devices by boron --- for  
stabilizing gate threshold potential  
[NASA-CASE-GSC-11425-2] c 76 N75-25730  
Arc control in compact arc lamps  
[NASA-CASE-NPO-10870-1] c 33 N77-22386  
Self-stabilizing radial face seal  
[NASA-CASE-LEW-12991-1] c 37 N81-24442

## STABILIZED PLATFORMS

Hydraulic drive mechanism Patent  
[NASA-CASE-XMS-03252] c 15 N71-10658  
Failure detection and control means for improved drift  
performance of a gimbal platform system  
[NASA-CASE-MFS-23551-1] c 04 N76-26175  
Rotary leveling base platform  
[NASA-CASE-ARC-10981-1] c 37 N78-27425  
Magnetic bearing and motor  
[NASA-CASE-GSC-12726-1] c 37 N83-34323

## STABILIZERS

Satellite despin device Patent  
[NASA-CASE-XMF-08523] c 31 N71-20396

## STABILIZERS (AGENTS)

Hydrazinium nitroformate propellant stabilized with  
nitroguanidine  
[NASA-CASE-NPO-12000] c 27 N72-25699

## STABILIZERS (FLUID DYNAMICS)

Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-36410  
Mechanical stability augmentation system Patent  
[NASA-CASE-XLA-06339] c 02 N71-13422  
Apparatus for automatically stabilizing the attitude of a  
nonguided vehicle  
[NASA-CASE-ARC-10134] c 30 N72-17873  
Life raft stabilizer  
[NASA-CASE-MS-C-12393-1] c 02 N73-26006  
Externally supported internally stabilized flexible duct  
joint  
[NASA-CASE-MFS-19194-1] c 37 N76-14460

## STABLE OSCILLATIONS

Amplifier drift tester  
[NASA-CASE-XMS-05562-1] c 09 N69-39986

## STACKS

Remote fire stack igniter --- with solenoid-controlled  
valve  
[NASA-CASE-MFS-21675-1] c 25 N74-33378

## STAGE SEPARATION

Tubular coupling having frangible connecting means  
[NASA-CASE-XLA-02854] c 15 N69-27490  
Missile stage separation indicator and stage initiator  
Patent  
[NASA-CASE-XLA-00791] c 03 N70-39930  
Quick release separation mechanism Patent  
[NASA-CASE-XLA-01441] c 15 N70-41679  
Spacecraft separation system for spinning vehicles  
and/or payloads Patent  
[NASA-CASE-XLA-02132] c 31 N71-10582  
Payload/burned-out motor case separation system  
Patent  
[NASA-CASE-XLA-05369] c 31 N71-15687  
Single action separation mechanism Patent  
[NASA-CASE-XLA-00188] c 15 N71-22874  
Lateral displacement system for separated rocket stages  
Patent  
[NASA-CASE-XLA-04804] c 31 N71-23008  
Separation simulator Patent  
[NASA-CASE-XKS-04631] c 10 N71-23663  
Frangible link  
[NASA-CASE-MS-C-11849-1] c 15 N72-22488  
Tanker orbit transfer vehicle and method  
[NASA-CASE-MS-C-20543-1] c 18 N84-22610

## STAGNATION PRESSURE

Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692  
Stagnation pressure probe --- for measuring pressure  
of supersonic gas streams  
[NASA-CASE-LAR-11139-1] c 35 N74-32878

**STAGNATION TEMPERATURE**

Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent  
[NASA-CASE-XLE-00266] c 14 N70-34156

**STAINING**

Automated single-slide staining device  
[NASA-CASE-LAR-11649-1] c 51 N77-27677

**STAINLESS STEELS**

Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443

Ultrasonic scanning system for in-place inspection of brazed tube joints  
[NASA-CASE-MFS-20767-1] c 38 N74-15130

Method of forming a wick for a heat pipe  
[NASA-CASE-NPO-13391-1] c 34 N76-27515

Method of making reinforced composite structure  
[NASA-CASE-LEW-12619-1] c 24 N77-19171

Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MSC-18172-1] c 26 N80-19237

Moving body velocity arresting line — stainless steel cables with energy absorbing sleeves  
[NASA-CASE-LAR-12372-1] c 37 N82-18601

**STAMPING**

Holding fixture for a hot stamping press  
[NASA-CASE-GSC-12619-1] c 37 N84-12491

Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274

**STANDARDS**

Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348

**STANDING WAVES**

Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15767

Image readout device with electronically variable spatial resolution  
[NASA-CASE-LAR-12633-1] c 33 N82-24418

Acoustic levitation methods and apparatus  
[NASA-CASE-NPO-15562-1] c 71 N82-27086

Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112

System for controlled acoustic rotation of objects  
[NASA-CASE-NPO-15522-1] c 71 N83-32516

Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948

Gravity enhanced acoustic levitation method and apparatus  
[NASA-CASE-NPO-16147-1] c 71 N84-16949

**STAR TRACKERS**

Roll attitude star sensor system Patent  
[NASA-CASE-XNP-01307] c 21 N70-41856

Sun tracker with rotatable plane-parallel plate and two photocells Patent  
[NASA-CASE-XGS-01159] c 21 N71-10678

Canopus detector including automotive gain control of photomultiplier tube Patent  
[NASA-CASE-XNP-03914] c 21 N71-10771

Spacecraft attitude detection system by stellar reference Patent  
[NASA-CASE-XGS-03431] c 21 N71-15642

Reference voltage switching unit  
[NASA-CASE-NPO-11253] c 09 N72-17157

Star tracking reticles and process for the production thereof  
[NASA-CASE-GSC-11188-2] c 21 N73-19630

Star tracking reticles  
[NASA-CASE-GSC-11188-1] c 14 N73-32320

Formation of star tracking reticles  
[NASA-CASE-GSC-11188-3] c 74 N74-20008

Star scanner — with a reticle with a pair of slits having differing separation  
[NASA-CASE-GSC-11569-1] c 89 N74-30888

Programmable scan/read circuitry for charge coupled device imaging detectors — spacecraft attitude control and star trackers  
[NASA-CASE-NPO-15345-1] c 74 N84-23247

**STARK EFFECT**

Resonant waveguide stark cell — using microwave spectrometers  
[NASA-CASE-LAR-11352-1] c 33 N75-26245

Stark-effect modulation of CO<sub>2</sub> laser with NH<sub>2</sub>D  
[NASA-CASE-NPO-11945-1] c 36 N76-18427

Stark cell optoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015

Stark effect spectrophone for continuous absorption spectra monitoring — a technique for gas analysis  
[NASA-CASE-NPO-15102-1] c 25 N81-25159

**STARTERS**

Starting circuit for vapor lamps and the like Patent  
[NASA-CASE-XNP-01058] c 09 N71-12540

Motor run-up system — power lines  
[NASA-CASE-NPO-13374-1] c 33 N75-19524

Motor power factor controller with a reduced voltage starter  
[NASA-CASE-MFS-25586-1] c 33 N82-11360

**STARTING**

Portable device for use in starting air-start-units for aircraft and having cable lead testing capability  
[NASA-CASE-FRC-10113-1] c 33 N80-26599

**STATIC DISCHARGERS**

Use of glow discharge in fluidized beds  
[NASA-CASE-ARC-11245-1] c 28 N82-18401

**STATIC FRICTION**

Friction measuring apparatus Patent  
[NASA-CASE-XNP-08680] c 14 N71-22995

Static coefficient test method and apparatus  
[NASA-CASE-GSC-11893-1] c 35 N76-31489

**STATIC INVERTERS**

Static inverters which sum a plurality of waves Patent  
[NASA-CASE-XMF-00663] c 08 N71-18752

Static inverter Patent  
[NASA-CASE-XGS-05289] c 09 N71-19470

**STATIC LOADS**

Instrument for measuring torsional creep and recovery Patent  
[NASA-CASE-XLE-01481] c 14 N71-10781

Tension measurement device Patent  
[NASA-CASE-XMS-04545] c 15 N71-22878

**STATIC PRESSURE**

Aerodynamic measuring device Patent  
[NASA-CASE-XLA-00481] c 14 N70-36824

Check valve assembly for a probe Patent  
[NASA-CASE-XLA-00128] c 15 N70-37925

Static pressure probe  
[NASA-CASE-LAR-11552-1] c 35 N76-14429

Static pressure orifice system testing method and apparatus  
[NASA-CASE-LAR-12269-1] c 35 N80-18358

Apparatus and method for jet noise suppression  
[NASA-CASE-LAR-11903-2] c 71 N84-14873

**STATIONKEEPING**

Station keeping of a gravity gradient stabilized satellite Patent  
[NASA-CASE-XLA-03132] c 31 N71-22969

**STATISTICAL CORRELATION**

Optical probing of supersonic flows with statistical correlation  
[NASA-CASE-MFS-20642] c 14 N72-21407

**STATOR BLADES**

Stator rotor tools  
[NASA-CASE-MSC-16000-1] c 37 N78-24544

**STATORS**

Nickel base alloy — for gas turbine engine stator vanes  
[NASA-CASE-LEW-12270-1] c 26 N77-32280

Natural turbulence electrical power generator — using wave action or random motion  
[NASA-CASE-LAR-11551-1] c 44 N80-29834

Damping seal for turbomachinery  
[NASA-CASE-MFS-25842-1] c 37 N83-26080

**STEADY STATE**

Steady state thermal radiometers  
[NASA-CASE-MFS-21108-1] c 34 N74-27861

Trace water sensor  
[NASA-CASE-NPO-15722-1] c 35 N83-20084

**STEAM**

Steam cooled rich-burn combustor liner  
[NASA-CASE-LEW-13609-1] c 25 N83-17628

**STEAM TURBINES**

Boiler for generating high quality vapor Patent  
[NASA-CASE-XLE-00785] c 33 N71-16104

**STEELS**

Potassium silicate zinc coatings  
[NASA-CASE-GSC-10361-1] c 18 N72-23581

**STEERABLE ANTENNAS**

Array phasing device Patent  
[NASA-CASE-ERC-10046] c 10 N71-18722

Satellite communication system Patent  
[NASA-CASE-XNP-02389] c 07 N71-28900

Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860

Phased array antenna control  
[NASA-CASE-MSC-14939-1] c 32 N78-11264

**STEERING**

Steerable solid propellant rocket motor Patent  
[NASA-CASE-NPO-00234] c 28 N70-38645

**STELLAR LUMINOSITY**

Radiant energy intensity measurement system Patent  
[NASA-CASE-XNP-06510] c 14 N71-23797

**STELLAR SPECTRA**

Radiant energy intensity measurement system Patent  
[NASA-CASE-XNP-06510] c 14 N71-23797

**STENCIL PROCESSES**

Method of tracing contour patterns for use in making gradual contour resin matrix composites  
[NASA-CASE-ARC-11246-1] c 31 N83-34073

**STEPPING MOTORS**

Scanner — photography from a spin stabilized synchronous satellite  
[NASA-CASE-GSC-12032-2] c 43 N82-13465

**STEREOPHOTOGRAPHY**

Stereo photomicrography system  
[NASA-CASE-LAR-10176-1] c 14 N72-20380

Optical stereo video signal processor — line of sight tracking  
[NASA-CASE-MFS-25752-1] c 74 N83-21950

**STEREOSCOPIC VISION**

Stereoscopic television system and apparatus  
[NASA-CASE-ARC-10160-1] c 23 N72-27728

**STEREOSCOPY**

Real-time 3-D X-ray and gamma-ray viewer  
[NASA-CASE-GSC-12640-1] c 74 N84-11920

**STERILIZATION**

Process for preparing sterile solid propellants Patent  
[NASA-CASE-XNP-01749] c 27 N70-41897

Processing for producing a sterilized instrument Patent  
[NASA-CASE-XNP-09763] c 14 N71-20461

Air conditioned suit  
[NASA-CASE-LAR-10076-1] c 05 N73-20137

Protein sterilization method of firefly luciferase using reduced pressure and molecular sieves  
[NASA-CASE-GSC-10225-1] c 06 N73-27086

Heat sterilizable patient ventilator  
[NASA-CASE-NPO-13313-1] c 54 N75-27761

Portable heatable container  
[NASA-CASE-NPO-14237-1] c 44 N80-20808

System for sterilizing objects — cleaning space vehicle systems  
[NASA-CASE-KSC-11085-1] c 54 N81-24724

**STERILIZATION EFFECTS**

Electrical connector  
[NASA-CASE-NPO-10694] c 09 N72-20200

**STIFFENING**

Metal matrix composite structural panel construction  
[NASA-CASE-LAR-12807-1] c 24 N84-11214

**STIFFNESS**

Modified face seal for positive film stiffness  
[NASA-CASE-LEW-12989-1] c 37 N82-12442

**STIMULATED EMISSION**

Repetitively pulsed, wavelength selective laser Patent  
[NASA-CASE-ERC-10178] c 16 N71-24832

**STIRLING CYCLE**

Stirling cycle engine and refrigeration systems  
[NASA-CASE-NPO-13613-1] c 37 N76-29590

Power control for hot gas engines  
[NASA-CASE-NPO-14220-1] c 37 N81-14318

Phase-angle controller for Stirling engines  
[NASA-CASE-NPO-14388-1] c 37 N81-17432

Solar energy receiver for a Stirling engine  
[NASA-CASE-NPO-14619-1] c 44 N81-17518

Hot gas engine with dual crankshafts  
[NASA-CASE-NPO-14221-1] c 37 N81-25370

Stirling cycle cryogenic cooler — magnetically suspended pistons  
[NASA-CASE-GSC-12697-1] c 31 N82-11312

Reciprocating linear motor  
[NASA-CASE-GSC-12773-1] c 33 N83-12332

Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153

Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574

**STIRRING**

Stirring apparatus for plural test tubes Patent  
[NASA-CASE-XAC-06956] c 15 N71-21177

**STOICHIOMETRY**

Sulfone-ester polymers containing pendent ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987

**STORAGE**

Fluid sample collector Patent  
[NASA-CASE-XMS-06767-1] c 14 N71-20435

Sodium storage and injection system  
[NASA-CASE-NPO-14384-1] c 37 N80-10494

**STORAGE BATTERIES**

Bonded elastomeric seal for electrochemical cells Patent  
[NASA-CASE-XGS-02631] c 03 N71-23006

Automatic battery charger Patent  
[NASA-CASE-XNP-04758] c 03 N71-24605

Electric battery and method for operating same Patent  
[NASA-CASE-XGS-01874] c 03 N71-29129

Electric storage battery  
[NASA-CASE-NPO-11021] c 03 N72-20032

Hydrogen-bromine secondary battery  
[NASA-CASE-NPO-12327-1] c 44 N76-18841

Rechargeable battery which combats shape change of the zinc anode  
[NASA-CASE-HQN-10862-1] c 44 N76-29699

Electrically rechargeable REDOX flow cell  
[NASA-CASE-LEW-12220-1] c 44 N77-14581

Formulated plastic separators for soluble electrode cells --- rubber-ion transport membranes  
 [NASA-CASE-LEW-12358-1] c 44 N79-17313  
 Toroidal cell and battery --- storage battery for high amp-hour load applications  
 [NASA-CASE-LEW-12918-1] c 44 N81-24521  
 Chemically rechargeable battery  
 [NASA-CASE-NPO-16024-1] c 44 N84-23020

**STORAGE STABILITY**  
 Thermally activated foaming compositions Patent  
 [NASA-CASE-LAR-10373-1] c 18 N71-26155  
 Gas diffusion liquid storage bag and method of use for storing blood  
 [NASA-CASE-NPO-13930-1] c 52 N79-14749  
 Method for retarding dye fading during archival storage of developed color photographic film --- inert atmosphere  
 [NASA-CASE-MFS-23250-1] c 35 N82-11432  
 Phenoxy resins containing pendent ethynyl groups and cured resins therefrom  
 [NASA-CASE-LAR-13262-1] c 27 N84-24805

**STORAGE TANKS**  
 Expulsion bladder-equipped storage tank structure Patent  
 [NASA-CASE-XNP-00612] c 11 N70-38182  
 Method for leakage testing of tanks Patent  
 [NASA-CASE-XMF-02392] c 32 N71-24285  
 Zero gravity shadow shield aligner  
 [NASA-CASE-KSC-10622-1] c 31 N72-21893  
 Cryogenic container compound suspension strap  
 [NASA-CASE-ARC-11157-1] c 37 N80-18393

**STOWAGE (ONBOARD EQUIPMENT)**  
 Hemispherical latching apparatus for payload retention  
 [NASA-CASE-MFS-25837] c 16 N82-31398  
 Latching mechanism for deployable-restowable columns  
 [NASA-CASE-LAR-13169-1] c 37 N84-25063

**STRAIN GAGE ACCELEROMETERS**  
 Accelerometer with FM output Patent  
 [NASA-CASE-XLA-00492] c 14 N70-34799  
 Angular accelerometer Patent  
 [NASA-CASE-XMS-05936] c 14 N70-41682

**STRAIN GAGE BALANCES**  
 Self-balancing strain gage transducer Patent  
 [NASA-CASE-MFS-12827] c 14 N71-17656

**STRAIN GAGES**  
 Semiconductor p-n junction stress and strain sensor  
 [NASA-CASE-XLA-04980] c 09 N69-27422  
 Wire grid forming apparatus Patent  
 [NASA-CASE-XLE-00023] c 15 N70-33330  
 Force measuring instrument Patent  
 [NASA-CASE-XMF-00456] c 14 N70-34705  
 Strain gage Patent Application  
 [NASA-CASE-FRC-10053] c 14 N70-35587  
 Difference circuit Patent  
 [NASA-CASE-XNP-08274] c 10 N71-13537  
 Strain sensor for high temperatures Patent  
 [NASA-CASE-XNP-09205] c 14 N71-17657  
 Extensometer Patent  
 [NASA-CASE-XMF-04680] c 15 N71-19489  
 Strain gauge measuring techniques Patent  
 [NASA-CASE-XGS-04478] c 14 N71-24233  
 Method of temperature compensating semiconductor strain gages Patent  
 [NASA-CASE-XLA-04555-1] c 14 N71-25892  
 Pulsed excitation voltage circuit for transducers  
 [NASA-CASE-FRC-10036] c 09 N72-22200  
 Method of making semiconductor p-n junction stress and strain sensor  
 [NASA-CASE-XLA-04980-2] c 14 N72-28438  
 Device for monitoring a change in mass in varying gravimetric environments  
 [NASA-CASE-MFS-21556-1] c 35 N74-26945  
 Strain gauge ambiguity sensor for segmented mirror active optical system  
 [NASA-CASE-MFS-20506-1] c 35 N75-12273  
 Subminiature insertable force transducer --- including a strain gage to measure forces in muscles  
 [NASA-CASE-NPO-13423-1] c 33 N75-31329  
 Self-supporting strain transducer  
 [NASA-CASE-LAR-11263-1] c 35 N75-33369  
 Strain gage mounting assembly  
 [NASA-CASE-NPO-13170-1] c 35 N76-14430  
 High temperature strain gage calibration fixture  
 [NASA-CASE-LAR-11500-1] c 35 N76-24523  
 Miniature biaxial strain transducer  
 [NASA-CASE-LAR-11648-1] c 35 N77-14407  
 CW ultrasonic bolt tensioning monitor  
 [NASA-CASE-LAR-12016-1] c 39 N78-15512  
 Attaching of strain gages to substrates  
 [NASA-CASE-FRC-10093-1] c 35 N80-20560  
 Photomechanical transducer  
 [NASA-CASE-NPO-14363-1] c 39 N81-25400  
 Pulsed phase locked loop strain monitor --- voltage controlled oscillators  
 [NASA-CASE-LAR-12772-1] c 33 N83-16626

Inflatable device for installing strain gage bridges  
 [NASA-CASE-FRC-11068-1] c 35 N84-12443  
 Thin film strain transducer --- in-flight monitoring of balloon film strain  
 [US-PATENT-APPL-SN-526770] c 35 N84-12448  
 Tensile testing apparatus  
 [NASA-CASE-LAR-13243-1] c 35 N84-20804  
 Thin film strain transducer  
 [NASA-CASE-WLP-10055-1] c 35 N84-28015  
 Strain gage calibration  
 [NASA-CASE-LAR-12743-1] c 35 N84-28019

**STRAIN RATE**  
 Light intensity strain analysis  
 [NASA-CASE-LAR-10765-1] c 32 N73-20740  
 Strain gage calibration  
 [NASA-CASE-LAR-12743-1] c 35 N84-28019

**STRAKES**  
 Helicopter anti-torque system using strakes  
 [NASA-CASE-MFS-22189-1] c 05 N84-33400

**STRAPDOWN INERTIAL GUIDANCE**  
 All sky pointing attitude control system  
 [NASA-CASE-ARC-10716-1] c 35 N77-20399

**STRAPS**  
 Meter for use in detecting tension in straps having predetermined elastic characteristics  
 [NASA-CASE-MFS-22189-1] c 35 N75-19615  
 Cryogenic container compound suspension strap  
 [NASA-CASE-ARC-11157-1] c 37 N80-18393

**STRATIGRAPHY**  
 System for plotting subsoil structure and method therefor  
 [NASA-CASE-NPO-14191-1] c 31 N80-32584

**STRAWS**  
 Apparatus for measuring a sorbate dispersed in a fluid stream  
 [NASA-CASE-ARC-10896-1] c 35 N78-19465

**STRESS ANALYSIS**  
 Method and apparatus for measuring the damping characteristics of a structure  
 [NASA-CASE-ARC-10154-1] c 14 N72-22440  
 Light intensity strain analysis  
 [NASA-CASE-LAR-10765-1] c 32 N73-20740  
 High temperature strain gage calibration fixture  
 [NASA-CASE-LAR-11500-1] c 35 N76-24523

**STRESS CONCENTRATION**  
 Self-supporting strain transducer  
 [NASA-CASE-LAR-11263-1] c 35 N75-33369

**STRESS CORROSION**  
 Method of inhibiting stress corrosion cracks in titanium alloys Patent  
 [NASA-CASE-NPO-10271] c 17 N71-16393  
 Controlled glass bead peening Patent  
 [NASA-CASE-XLA-07390] c 15 N71-18616

**STRESS MEASUREMENT**  
 Semiconductor p-n junction stress and strain sensor  
 [NASA-CASE-XLA-04980] c 09 N69-27422  
 Force measuring instrument Patent  
 [NASA-CASE-XMF-00456] c 14 N70-34705  
 Self-balancing strain gage transducer Patent  
 [NASA-CASE-MFS-12827] c 14 N71-17656  
 Strain coupled servo control system Patent  
 [NASA-CASE-XLA-08530] c 32 N71-25360  
 Amplifying ribbon extensometer  
 [NASA-CASE-LAR-11825-1] c 35 N77-22449  
 CW ultrasonic bolt tensioning monitor  
 [NASA-CASE-LAR-12016-1] c 39 N78-15512

**STRESS RELAXATION**  
 Method for alleviating thermal stress damage in laminates --- metal matrix composites  
 [NASA-CASE-LEW-12493-1] c 24 N81-17170

**STRESS RELIEVING**  
 All-directional fastener Patent  
 [NASA-CASE-XLA-01807] c 15 N71-10799  
 Steam cooled rich-burn combustor liner  
 [NASA-CASE-LEW-13609-1] c 25 N83-17628

**STRESSES**  
 Tape recorder Patent  
 [NASA-CASE-XGS-08259] c 14 N71-23698  
 Strain gage measuring techniques Patent  
 [NASA-CASE-XGS-04478] c 14 N71-24233  
 Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts  
 [NASA-CASE-MSC-14182-1] c 27 N76-14264  
 Fixture for environmental exposure of structural materials under compression load  
 [NASA-CASE-LAR-12602-1] c 39 N83-32081

**STRETCHERS**  
 Rescue litter flotation assembly Patent  
 [NASA-CASE-XMS-04170] c 05 N71-22748  
 Stretcher Patent  
 [NASA-CASE-XMF-06589] c 05 N71-23159

**STRETCHING**  
 Fastener stretcher  
 [NASA-CASE-GSC-11149-1] c 15 N73-30457

**STRINGS**  
 Omnidirectional joint Patent  
 [NASA-CASE-XMS-09635] c 05 N71-24623

**STRIP TRANSMISSION LINES**  
 Microwave integrated circuit for Josephson voltage standards  
 [NASA-CASE-MFS-23845-1] c 33 N81-17348  
 Microwave switching power divider --- antenna feeds  
 [NASA-CASE-GSC-12420-1] c 33 N82-16340

**STRUCTURAL ANALYSIS**  
 Window defect planar mapping technique  
 [NASA-CASE-MSC-19442-1] c 74 N77-10899

**STRUCTURAL DESIGN**  
 Life raft Patent  
 [NASA-CASE-XMS-00863] c 05 N70-34857  
 High pressure regulator valve Patent  
 [NASA-CASE-XNP-00710] c 15 N71-10778  
 Lifting body Patent Application  
 [NASA-CASE-FRC-10063] c 01 N71-12217  
 Ring wing tension vehicle Patent  
 [NASA-CASE-XLA-04901] c 31 N71-24315  
 Opto-mechanical subsystem with temperature compensation through isothermal design  
 [NASA-CASE-GSC-12059-1] c 35 N77-27366  
 Lightweight reflector assembly  
 [NASA-CASE-NPO-13707-1] c 74 N77-28933  
 Horizontally mounted solar collector  
 [NASA-CASE-MFS-23349-1] c 44 N79-23481

**STRUCTURAL DESIGN CRITERIA**  
 Geometries for roughness shapes in laminar flow  
 [NASA-CASE-LAR-13255-1] c 02 N84-12092  
 Improved compliant hydrodynamic fluid journal bearing  
 [NASA-CASE-LEW-13670-1] c 37 N84-22959

**STRUCTURAL ENGINEERING**  
 Daze fasteners  
 [NASA-CASE-LAR-13009-1] c 37 N83-29706  
 Beam connector apparatus and assembly  
 [NASA-CASE-MFS-25134-1] c 31 N83-31895

**STRUCTURAL FAILURE**  
 Method and apparatus for nondestructive testing of pressure vessels  
 [NASA-CASE-NPO-12142-1] c 38 N76-28563

**STRUCTURAL MEMBERS**  
 Broadband choke for antenna structure  
 [NASA-CASE-XMS-05303] c 07 N69-27462  
 Optical alignment system Patent  
 [NASA-CASE-XNP-02029] c 14 N70-41955  
 All-directional fastener Patent  
 [NASA-CASE-XLA-01807] c 15 N71-10799  
 Frictionless universal joint Patent  
 [NASA-CASE-NPO-10646] c 15 N71-28467  
 Fastener stretcher  
 [NASA-CASE-GSC-11149-1] c 15 N73-30457  
 Method of laminating structural members  
 [NASA-CASE-XLA-11028-1] c 24 N74-27035  
 Folding structure fabricated of rigid panels  
 [NASA-CASE-XHQ-02146] c 18 N75-27040  
 Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts  
 [NASA-CASE-MSC-14182-1] c 27 N76-14264  
 Mechanical end joint system for structural column elements  
 [NASA-CASE-LAR-12482-1] c 37 N82-32732

**STRUCTURAL STABILITY**  
 Latching device  
 [NASA-CASE-MFS-21606-1] c 37 N75-19685  
 Flanged major modular assembly jig  
 [NASA-CASE-MSC-19372-1] c 39 N76-31562

**STRUCTURAL VIBRATION**  
 Electrical connector Patent Application  
 [NASA-CASE-MFS-14741] c 09 N70-20737  
 Seismic displacement transducer Patent  
 [NASA-CASE-XMF-00479] c 14 N70-34794  
 Vibrating structure displacement measuring instrument Patent  
 [NASA-CASE-XLA-03135] c 32 N71-16428  
 Active notch filter network with variable notch depth, width and frequency  
 [NASA-CASE-FRC-11055-1] c 33 N80-29583

**STRUCTURES**  
 Arbitrarily shaped model survey system Patent  
 [NASA-CASE-LAR-10098] c 32 N71-26681

**STRUTS**  
 Energy absorbing structure Patent Application  
 [NASA-CASE-MSC-12279-1] c 15 N70-35679  
 Collapsible structure for an antenna reflector  
 [NASA-CASE-NPO-11751] c 07 N73-24176  
 Locking redundant link  
 [NASA-CASE-LAR-11900-1] c 37 N79-14382  
 Multiple pure tone elimination strut assembly --- air breathing engines  
 [NASA-CASE-FRC-11062-1] c 71 N82-16800

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## SURVIVAL EQUIPMENT

Survival couch Patent  
[NASA-CASE-XLA-00118] c 05 N70-33285  
Life preserver Patent  
[NASA-CASE-XMS-00864] c 05 N70-36493  
Soft frame adjustable eyeglasses Patent  
[NASA-CASE-XMS-06064] c 05 N71-23096

## SUSPENDING (HANGING)

Parallel motion suspension device Patent  
[NASA-CASE-XNP-01567] c 15 N70-41310  
Reduced gravity simulator Patent  
[NASA-CASE-XLA-01787] c 11 N71-16028  
Suspended mass impact damper Patent  
[NASA-CASE-LAR-10193-1] c 15 N71-27146

## SUSPENSION SYSTEMS (VEHICLES)

Suspension system for a wheel rolling on a flat track --- bearings for directional antennas  
[NASA-CASE-NPO-14395-1] c 37 N82-21587

## WEAT

Sweat collection capsule  
[NASA-CASE-ARC-11031-1] c 52 N81-29763

## WEAT COOLING

Transpiration cooled turbine blade manufactured from wires Patent  
[NASA-CASE-XLE-00020] c 15 N70-33226  
Transpirationally cooled heat ablation system Patent  
[NASA-CASE-XMS-02677] c 31 N70-42075  
Method of electroforming a rocket chamber  
[NASA-CASE-LEW-11118-1] c 20 N74-32919

## SWEEP CIRCUITS

Multiple slope sweep generator Patent  
[NASA-CASE-XMS-03542] c 09 N71-28926

## SWEEP EFFECT

High speed flight vehicle control Patent  
[NASA-CASE-XLA-08967] c 02 N71-27088  
Acoustically swept rotor --- helicopter noise reduction  
[NASA-CASE-ARC-11106-1] c 05 N80-14107

## SWEEP FREQUENCY

Swept group delay measurement  
[NASA-CASE-NPO-13909-1] c 33 N78-25319

## SWELLING

Intumescent composition, foamed product prepared therewith, and process for making same  
[NASA-CASE-ARC-10304-1] c 18 N73-26572

## SWEEP WINGS

Supersonic aircraft Patent  
[NASA-CASE-XLA-04451] c 02 N71-12243  
Leading edge vortex flaps for drag reduction --- during subsonic flight  
[NASA-CASE-LAR-12750-1] c 02 N81-19016

## SWIRLING

Slosh alleviator Patent  
[NASA-CASE-XLA-05749] c 15 N71-19569  
Swirl can primary combustor  
[NASA-CASE-LEW-11326-1] c 23 N73-30665

## SWITCHES

Switching mechanism with energy storage means Patent  
[NASA-CASE-XGS-00473] c 03 N70-38713  
Digital memory in which the driving of each word location is controlled by a switch core Patent  
[NASA-CASE-XNP-01466] c 10 N71-26434  
RF controlled solid state switch  
[NASA-CASE-ARC-10136-1] c 09 N72-22202  
High power RF coaxial switch  
[NASA-CASE-NPO-14229-1] c 33 N80-18285  
Automatic thermal switch  
[NASA-CASE-GSC-12415-1] c 33 N82-24419  
Fiber optic crossbar switch for automatically patching optical signals  
[NASA-CASE-KSC-11104-1] c 74 N83-29032  
Triac failure detector  
[NASA-CASE-MFS-25607-1] c 33 N83-34190  
Heat pipe thermal switch  
[NASA-CASE-GSC-12812-1] c 34 N83-35307  
Three-phase power factor controller with induced EMF sensing  
[NASA-CASE-MFS-25852-1] c 33 N84-33661

## SWITCHING

Phase detector for three-phase power factor controller  
[NASA-CASE-MFS-25854-1] c 33 N84-27975

## SWITCHING CIRCUITS

Solid state switch  
[NASA-CASE-XNP-09228] c 09 N69-27500  
Power control circuit  
[NASA-CASE-XNP-02713] c 10 N69-39888  
A method for selective gold diffusion of monolithic silicon devices and/or circuits Patent application  
[NASA-CASE-ERC-10072] c 09 N70-11148  
Space vehicle electrical system Patent  
[NASA-CASE-XMF-00517] c 03 N70-34157  
High speed low level electrical stepping switch Patent  
[NASA-CASE-XAC-00060] c 09 N70-39915  
Switching circuit employing regeneratively connected complementary transistors Patent  
[NASA-CASE-XNP-02654] c 10 N70-42032  
Electronic beam switching commutator Patent  
[NASA-CASE-XGS-01451] c 09 N71-10677  
Electronic amplifier with power supply switching Patent  
[NASA-CASE-XMS-00945] c 09 N71-10798  
SCR blocking pulse gate amplifier Patent  
[NASA-CASE-XLA-07497] c 09 N71-12514  
Magnetic core current steering commutator Patent  
[NASA-CASE-NPO-10201] c 08 N71-18694  
A dc-coupled noninverting one-shot Patent  
[NASA-CASE-XNP-09450] c 10 N71-18723  
Reversible current control apparatus Patent  
[NASA-CASE-XLA-09371] c 10 N71-18724  
Exclusive-Or digital logic module Patent  
[NASA-CASE-XLA-07732] c 08 N71-18751  
Polarization diversity monopulse tracking receiver Patent  
[NASA-CASE-XGS-03501] c 09 N71-20864  
Sight switch using an infrared source and sensor Patent  
[NASA-CASE-XMF-03934] c 09 N71-22985  
Complementary regenerative switch Patent  
[NASA-CASE-XGS-02751] c 09 N71-23015  
Drive circuit utilizing two cores Patent  
[NASA-CASE-XNP-01318] c 10 N71-23033  
Pulse modulator providing fast rise and fall times Patent  
[NASA-CASE-XMS-04919] c 09 N71-23270  
Polarity sensitive circuit Patent  
[NASA-CASE-XNP-00952] c 10 N71-23271  
Increasing efficiency of switching type regulator circuits Patent  
[NASA-CASE-XMS-09352] c 09 N71-23316  
Indexing microwave switch Patent  
[NASA-CASE-XNP-06507] c 09 N71-23548  
Multialarm summary alarm Patent  
[NASA-CASE-XLE-03061-1] c 10 N71-24798  
Switching circuit Patent  
[NASA-CASE-XNP-06505] c 10 N71-24799  
Inverter with means for base current shaping for sweeping charge carriers from base region Patent  
[NASA-CASE-XGS-06226] c 10 N71-25950  
Current steering switch Patent  
[NASA-CASE-XNP-08567] c 09 N71-26000  
Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
[NASA-CASE-XGS-04224] c 10 N71-26418  
Turn on transient limiter Patent  
[NASA-CASE-GSC-10413] c 10 N71-26531  
Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774  
Transistor drive regulator Patent  
[NASA-CASE-LEW-10233] c 10 N71-27126  
Compensating bandwidth switching transients in an amplifier circuit Patent  
[NASA-CASE-XNP-01107] c 10 N71-28859  
Monostable multivibrator with complementary NOR gates Patent  
[NASA-CASE-MSC-13492-1] c 10 N71-28860  
Digital memory sense amplifying means Patent  
[NASA-CASE-XNP-01012] c 08 N71-28925  
Current regulating voltage divider  
[NASA-CASE-MFS-20935] c 09 N71-34212  
Reference voltage switching unit  
[NASA-CASE-NPO-11253] c 09 N72-17157  
Optimum performance spacecraft solar cell system  
[NASA-CASE-GSC-10669-1] c 03 N72-20031  
Flow rate switch  
[NASA-CASE-NPO-10722] c 09 N72-20199  
Switching regulator  
[NASA-CASE-LEW-11005-1] c 09 N72-21243  
Data multiplexer using tree switching configuration  
[NASA-CASE-NPO-11333] c 08 N72-22162  
Pulse coupling circuit  
[NASA-CASE-LEW-10433-1] c 09 N72-22197  
Solid state remote circuit selector switch  
[NASA-CASE-LEW-10387] c 09 N72-22201

Pressure operated electrical switch responsive to a pressure decrease after a pressure increase  
[NASA-CASE-LAR-10137-1] c 09 N72-22204  
Fast response low power drain logic circuits  
[NASA-CASE-GSC-10878-1] c 10 N72-22236  
CRT blanking and brightness control circuit  
[NASA-CASE-KSC-10647-1] c 10 N72-31273  
Electronic video editor  
[NASA-CASE-KSC-10003] c 10 N73-13235  
Radiation sensitive solid state switch  
[NASA-CASE-NPO-10817-1] c 08 N73-30135  
Transparent switchboard  
[NASA-CASE-MSC-13748-1] c 10 N73-32143  
High isolation RF signal selection switches  
[NASA-CASE-NPO-13081-1] c 33 N74-22814  
Isolated output system for a class D switching-mode amplifier  
[NASA-CASE-MFS-21616-1] c 33 N75-30429  
Dual digital video switcher  
[NASA-CASE-KSC-10782-1] c 33 N75-30431  
Multi-computer multiple data path hardware exchange system  
[NASA-CASE-NPO-13422-1] c 60 N76-14818  
Sustained arc ignition system  
[NASA-CASE-LEW-12444-1] c 33 N77-28385  
Window comparator  
[NASA-CASE-FRC-10090-1] c 33 N78-18308  
Module failure isolation circuit for paralleled inverters --- preventing system failure during power conditioning for spacecraft applications  
[NASA-CASE-NPO-14000-1] c 33 N79-24254  
System for automatically switching transformer coupled lines  
[NASA-CASE-MSC-16697-1] c 33 N79-28415  
Self-reconfiguring solar cell system  
[NASA-CASE-LEW-12586-1] c 44 N80-14472  
Push-pull converter with energy saving circuit for protecting switching transistors from peak power stress  
[NASA-CASE-NPO-14318-1] c 33 N81-33404  
Microwave switching power divider --- antenna feeds  
[NASA-CASE-GSC-12420-1] c 33 N82-16340  
Control means for a solid state crossbar switch  
[NASA-CASE-NPO-15066-1] c 33 N82-29538  
Active lamp pulse driver circuit --- optical pumping of laser media  
[NASA-CASE-GSC-12566-1] c 33 N83-34189  
Pulsed thyristor trigger control circuit  
[NASA-CASE-MFS-25616-1] c 33 N84-16455  
Simplified dc to dc converter  
[NASA-CASE-LEW-13495-1] c 33 N84-33663

## SWITCHING THEORY

Multiple circuit switch apparatus with improved pivot actuator structure Patent  
[NASA-CASE-XAC-03777] c 10 N71-15909

## SWIVELS

Swivel support for gas bearings Patent  
[NASA-CASE-XMF-07808] c 15 N71-23812

## SYNCHRONISM

Time division multiplex system  
[NASA-CASE-XGS-05918] c 07 N69-39974  
Means for generating a sync signal in an FM communication system Patent  
[NASA-CASE-XNP-10830] c 07 N71-11281  
Method of resolving clock synchronization error and means therefor Patent  
[NASA-CASE-XNP-08875] c 10 N71-23099  
Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent  
[NASA-CASE-XGS-03632] c 09 N71-23311  
Time synchronization system utilizing moon reflected coded signals Patent  
[NASA-CASE-NPO-10143] c 10 N71-26326  
Rapid sync acquisition system Patent  
[NASA-CASE-NPO-10214] c 10 N71-26577  
Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996  
Chopped molecular beam multiplexing system  
[NASA-CASE-LAR-13174-1] c 72 N84-25431

## SYNCHRONIZED OSCILLATORS

Phase demodulation system with two phase locked loops Patent  
[NASA-CASE-XNP-00777] c 10 N71-19469  
Phase locked phase modulator including a voltage controlled oscillator Patent  
[NASA-CASE-NPO-05382] c 10 N71-23544  
Automatic frequency control loop including synchronous switching circuits  
[NASA-CASE-KSC-10393] c 09 N72-21247  
Apparatus and method for tracking the fundamental frequency of an analog input signal  
[NASA-CASE-ARC-11367-1] c 33 N83-21238

## SYNCHRONIZERS

Burst synchronization detection system Patent  
[NASA-CASE-XMS-05605-1] c 10 N71-19468

- Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773
- Synchronous servo loop control system Patent  
[NASA-CASE-XNP-03744] c 10 N71-20448
- Digital synchronizer Patent  
[NASA-CASE-NPO-10851] c 07 N71-24613
- Video sync processor Patent  
[NASA-CASE-KSC-10002] c 10 N71-25865
- Pulse code modulated signal synchronizer  
[NASA-CASE-MSC-12462-1] c 32 N74-20809
- Pulse code modulated signal synchronizer  
[NASA-CASE-MSC-12494-1] c 32 N74-20810
- System for generating timing and control signals  
[NASA-CASE-NPO-13125-1] c 33 N75-19519
- Telemetry synchronizer  
[NASA-CASE-GSC-11868-1] c 17 N76-22245
- Memory-based frame synchronizer --- for digital communication systems  
[NASA-CASE-GSC-12430-1] c 60 N82-16747

## SYNCHRONOUS MOTORS

- Synchronous dc direct drive system Patent  
[NASA-CASE-GSC-10065-1] c 10 N71-27136
- Motor run-up system --- power lines  
[NASA-CASE-NPO-13374-1] c 33 N75-19524

## SYNCHRONOUS SATELLITES

- Position location system and method Patent  
[NASA-CASE-GSC-10087-2] c 21 N71-13958
- Serrodyne frequency converter re-entrant amplifier system Patent  
[NASA-CASE-XGS-01022] c 07 N71-16088
- Traffic control system and method Patent  
[NASA-CASE-GSC-10087-1] c 02 N71-19267
- Tracking antenna system Patent  
[NASA-CASE-GSC-10553-1] c 07 N71-19854
- Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149
- Synchronous orbit battery cyclor  
[NASA-CASE-GSC-11211-1] c 03 N72-25020
- Systems and methods for determining radio frequency interference  
[NASA-CASE-GSC-12150-1] c 32 N79-11265
- Satellite personal communications system  
[NASA-CASE-NPO-14480-1] c 32 N80-20448

## SYNTHESIS

- Synthesis of polymeric schiff bases by schiff-base exchange reactions Patent  
[NASA-CASE-XMF-08851] c 06 N71-11236
- Preparation of ordered poly /arylenesiloxane/ polymers  
[NASA-CASE-XMF-10753] c 06 N71-11237
- Imidazopyrrolone/imide copolymers Patent  
[NASA-CASE-XLA-08802] c 06 N71-11238
- Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids  
[NASA-CASE-LEW-11325-1] c 06 N73-27980

## SYNTHESIS (CHEMISTRY)

- Prepolymer dianhydrides  
[NASA-CASE-NPO-13899-1] c 27 N80-32515
- Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104
- Bifunctional monomers having terminal oxime and cyano or amide groups  
[NASA-CASE-ARC-11253-3] c 27 N81-24256
- Synthesis of polyformals  
[NASA-CASE-ARC-11244-1] c 23 N82-16174
- Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396
- Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188
- Synthesis of dawsontes --- for use in fire extinguishing operations  
[NASA-CASE-ARC-11326-1] c 25 N83-33977
- Solvent resistant thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-1] c 27 N83-34041
- Process for improving moisture resistance of epoxy resins by addition of chromium ions  
[NASA-CASE-LAR-13226-1] c 27 N84-20700
- Polymethylene ethers with imide linking groups  
[NASA-CASE-LAR-12980-1] c 27 N84-22749
- Phenoxy resins containing pendent ethynyl groups and cured resins therefrom  
[NASA-CASE-LAR-13262-1] c 27 N84-24805
- Sulfone-ester polymers containing pendent ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987
- Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988

## SYNTHESIZERS

- Digitally controlled frequency synthesizer Patent  
[NASA-CASE-XGS-02317] c 09 N71-23525

## SYNTHETIC APERTURE RADAR

- Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks  
[NASA-CASE-NPO-13862-1] c 35 N79-10391
- Azimuth correlator for real-time synthetic aperture radar image processing  
[NASA-CASE-NPO-14019-1] c 32 N79-14268
- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-1] c 32 N79-19195
- An electro-optical Doppler tracker means and method for optical correlation of synthetic aperture radar data  
[NASA-CASE-NPO-14998-1] c 33 N81-15194
- Real-time multiple-look synthetic aperture radar processor for spacecraft applications  
[NASA-CASE-NPO-14054-1] c 32 N82-12297
- Wideband passive synthetic-aperture multichannel receiver  
[NASA-CASE-NPO-15651-1] c 32 N82-26523
- Method and apparatus for Delta K synthetic aperture radar measurement of ocean current  
[NASA-CASE-NPO-15704-1] c 32 N82-28502
- Servomechanism for Doppler shift compensation in optical correlator for synthetic aperture radar  
[NASA-CASE-NPO-14998-1] c 32 N83-18975
- Clutter free synthetic aperture radar correlator  
[NASA-CASE-NPO-14035-1] c 32 N83-19968
- Method and apparatus for contour mapping using synthetic aperture radar  
[NASA-CASE-NPO-15939-1] c 43 N83-20324
- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-2] c 32 N83-31918
- Synthetic aperture radar target simulator  
[NASA-CASE-NPO-15024-1] c 32 N84-27951
- Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter  
[NASA-CASE-NPO-15519-1] c 32 N84-34651

## SYNTHETIC FIBERS

- Fluid containers and resealable septum therefor Patent  
[NASA-CASE-NPO-10123] c 15 N71-24835
- Fabric for micrometeoroid protection garment Patent  
[NASA-CASE-MSC-12109] c 18 N71-26285
- Fluid impervious barrier including liquid metal alloy and method of making same Patent  
[NASA-CASE-XNP-08881] c 17 N71-28747
- Polymeric electrolytic hygrometer  
[NASA-CASE-NPO-13948-1] c 35 N78-25391
- Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments  
[NASA-CASE-MSC-14331-3] c 27 N78-32262
- Insoluble polyelectrolyte and ion-exchange hollow fiber impregnated therewith  
[NASA-CASE-NPO-13530-1] c 25 N81-17187

## SYNTHETIC FUELS

- Molten salt pyrolysis of latex --- synthetic hydrocarbon fuel production using the Guayule shrub  
[NASA-CASE-NPO-14315-1] c 27 N81-17261
- Solar heated fluidized bed gasification system  
[NASA-CASE-NPO-15071-1] c 44 N82-16475

## SYNTHETIC RESINS

- Coating process  
[NASA-CASE-XNP-06508] c 18 N69-39895
- Phosphorus-containing bisimide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272
- Method for forming pyrrone molding powders and products of said method  
[NASA-CASE-LAR-10423-1] c 23 N82-29358

## SYNTHETIC RUBBERS

- Process for the preparation of polycarbonylphosphazenes --- thermal insulation  
[NASA-CASE-ARC-11176-2] c 27 N81-27271

## SYRINGES

- Micro-fluid exchange coupling apparatus  
[NASA-CASE-ARC-11114-1] c 51 N81-14605
- Automated syringe sampler --- remote sampling of air and water  
[NASA-CASE-LAR-12308-1] c 35 N81-29407

## SYSTEM EFFECTIVENESS

- System for the measurement of ultra-low stray light levels --- determining the adequacy of large space telescope systems  
[NASA-CASE-MFS-23513-1] c 74 N79-11865

## SYSTEM FAILURES

- Tape recorder Patent  
[NASA-CASE-XGS-08259] c 14 N71-23698
- Fault tolerant clock apparatus utilizing a controlled minority of clock elements  
[NASA-CASE-MSC-12531-1] c 35 N75-30504
- Apparatus for sensor failure detection and correction in a gas turbine engine control system  
[NASA-CASE-LEW-12907-2] c 07 N81-19115

## SYSTEMS ANALYSIS

- Analog-to-digital converter analyzing system  
[NASA-CASE-NPO-10560] c 08 N72-22166

## SYSTEMS ENGINEERING

- Magnetohydrodynamic induction machine  
[NASA-CASE-XNP-07481] c 25 N69-21929
- Gravity stabilized flying vehicle Patent  
[NASA-CASE-MSC-12111-1] c 02 N71-11039
- Solar battery with interconnecting means for plural cells Patent  
[NASA-CASE-XNP-06506] c 03 N71-11050
- Helmet assembly and latch means therefor Patent  
[NASA-CASE-XMS-04935] c 05 N71-11190
- Multi-feed cone Cassegrain antenna Patent  
[NASA-CASE-NPO-10539] c 07 N71-11285
- Viscous-pendulum-damper Patent  
[NASA-CASE-XLA-02079] c 12 N71-16894
- Out of tolerance warning alarm system for plurality of monitored circuits Patent  
[NASA-CASE-XMS-10984-1] c 10 N71-19417
- Wide range data compression system Patent  
[NASA-CASE-XGS-02612] c 08 N71-19435
- Space suit heat exchanger Patent  
[NASA-CASE-XMS-09571] c 05 N71-19439
- Biomedical radiation detecting probe Patent  
[NASA-CASE-XMS-01177] c 05 N71-19440
- High speed binary to decimal conversion system Patent  
[NASA-CASE-XGS-01230] c 08 N71-19544
- Evaporant source for vapor deposition Patent  
[NASA-CASE-XMF-06065] c 15 N71-20395
- Method and apparatus for making a heat insulating and ablative structure Patent  
[NASA-CASE-XMS-02009] c 33 N71-20834
- Polarization diversity monopulse tracking receiver Patent  
[NASA-CASE-XGS-03501] c 09 N71-20884
- Inflatable support structure Patent  
[NASA-CASE-XLA-01731] c 32 N71-21045
- Fast opening diaphragm Patent  
[NASA-CASE-XLA-03860] c 15 N71-21060
- Portable superclean air column device Patent  
[NASA-CASE-XMF-03212] c 15 N71-22721
- Apparatus for machining geometric cones Patent  
[NASA-CASE-XMS-04292] c 15 N71-22722
- Spin forming tubular elbows Patent  
[NASA-CASE-XMF-01083] c 15 N71-22723
- Spacecraft airlock Patent  
[NASA-CASE-XLA-02050] c 31 N71-22968
- Station keeping of a gravity gradient stabilized satellite Patent  
[NASA-CASE-XLA-03132] c 31 N71-22969
- Filler valve Patent  
[NASA-CASE-XNP-01747] c 15 N71-23024
- Refrigeration apparatus Patent  
[NASA-CASE-XNP-08877] c 15 N71-23025
- Reduced bandwidth video communication system utilizing sampling techniques Patent  
[NASA-CASE-XNP-02791] c 07 N71-23026
- Multiple environment materials test chamber having a multiple port X-ray tube for irradiating a plurality of samples Patent  
[NASA-CASE-XMS-02930] c 11 N71-23042
- Variable duration pulse integrator Patent  
[NASA-CASE-XLA-01219] c 10 N71-23084
- Sealed electrochemical cell provided with a flexible casing Patent  
[NASA-CASE-XGS-01513] c 03 N71-23336
- Extended area semiconductor radiation detectors and a novel readout arrangement Patent  
[NASA-CASE-XGS-03230] c 14 N71-23401
- Floating two force component measuring device Patent  
[NASA-CASE-XAC-04885] c 14 N71-23790
- Transducer circuit and catheter transducer Patent  
[NASA-CASE-ARC-10132-1] c 09 N71-24597
- Method of attaching a cover glass to a silicon solar cell Patent  
[NASA-CASE-XLE-08569-2] c 03 N71-24681
- Attitude control system for sounding rockets Patent  
[NASA-CASE-XGS-01654] c 31 N71-24750
- Temperature telemetric transmitter Patent  
[NASA-CASE-NPO-10649] c 07 N71-24840
- Tuning arrangement for an electron discharge device or the like Patent  
[NASA-CASE-XNP-09771] c 09 N71-24841
- Broadband modified turnstile antenna Patent  
[NASA-CASE-MSC-12209] c 09 N71-24842
- Apparatus for determining the deflection of an electron beam impinging on a target Patent  
[NASA-CASE-XMF-06617] c 09 N71-24843
- BCD to decimal decoder Patent  
[NASA-CASE-XKS-06167] c 08 N71-24890
- Noninterruptable digital counting system Patent  
[NASA-CASE-XNP-09759] c 08 N71-24891

Duct coupling for single-handed operation Patent  
[NASA-CASE-MFS-20395] c 15 N71-24903

Brushless direct current tachometer Patent  
[NASA-CASE-MFS-20385] c 09 N71-24904

Quick release hook tape Patent  
[NASA-CASE-XMS-10660-1] c 15 N71-25975

Internal work light Patent  
[NASA-CASE-XKS-05932] c 09 N71-26787

Apparatus for inspecting microfilm Patent  
[NASA-CASE-MFS-20240] c 14 N71-26788

Apparatus for remote measurement of displacement of marks on a specimen undergoing a tensile test  
[NASA-CASE-NPO-10778] c 14 N72-11364

Optimum performance spacecraft solar cell system  
[NASA-CASE-GSC-10669-1] c 03 N72-20031

Electric storage battery  
[NASA-CASE-NPO-11021] c 03 N72-20032

Spacecraft attitude control method and apparatus  
[NASA-CASE-HQN-10439] c 21 N72-21624

Light sensor  
[NASA-CASE-NPO-11311] c 14 N72-25414

Flight control system  
[NASA-CASE-MSC-13397-1] c 21 N72-25595

Program for computer aided reliability estimation  
[NASA-CASE-NPO-13088-1] c 15 N73-12495

Measurement system  
[NASA-CASE-MFS-20658-1] c 14 N73-30386

Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397

System for calibrating pressure transducer  
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Three mirror glancing incidence system for X-ray telescope  
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Holographic system for nondestructive testing  
[NASA-CASE-MFS-21704-1] c 35 N75-25124

Compact pulsed laser having improved heat conductance  
[NASA-CASE-NPO-13147-1] c 36 N77-25502

Tetherline system for orbiting satellites  
[NASA-CASE-MFS-23564-1] c 15 N78-25119

Non-tracking solar energy collector system  
[NASA-CASE-NPO-13813-1] c 44 N78-31526

Horizontally mounted solar collector  
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Contour measurement system  
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Redundant motor drive system  
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System for sterilizing objects --- cleaning space vehicle systems  
[NASA-CASE-KSC-11085-1] c 54 N81-24724

A system for controlling the oxygen content of a gas produced by combustion  
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Liquid hydrogen polygeneration system and process  
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Digital cardiometer system Patent  
[NASA-CASE-XMS-02399] c 05 N71-22896

Brushless direct current tachometer Patent  
[NASA-CASE-MFS-20385] c 09 N71-24904

Ratometer  
[NASA-CASE-MFS-20418] c 14 N73-24473

Tachometer  
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Shaft transducer having dc output proportional to angular velocity  
[NASA-CASE-NPO-15706-1] c 35 N84-28017

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Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532

## TAIL ASSEMBLIES

Surface conforming thermal/pressure seal --- tail assemblies of space shuttle orbiters  
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Missile rolling tail brake torque system --- simulating bearing friction on canard controlled missiles  
[NASA-CASE-LAR-12751-1] c 15 N84-16231

## TAKEOFF

Airplane take-off performance indicator Patent  
[NASA-CASE-XLA-00100] c 14 N70-36807

Aircraft instrument Patent  
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## TANGENTS

Derivation of a tangent function using an integrated circuit four-quadrant multiplier  
[NASA-CASE-MSC-13907-1] c 10 N73-26230

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Tank construction for space vehicles Patent  
[NASA-CASE-XMF-01899] c 31 N70-41948

## TANKERS

Tanker orbit transfer vehicle and method  
[NASA-CASE-MSC-20543-1] c 18 N84-22610

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Method for leakage testing of tanks Patent  
[NASA-CASE-XMF-02392] c 32 N71-24285

Floating baffle to improve efficiency of liquid transfer from tanks  
[NASA-CASE-KSC-10639] c 15 N73-26472

Method of producing a storage bulb for an atomic hydrogen maser  
[NASA-CASE-NPO-13050-1] c 36 N75-15029

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[NASA-CASE-NPO-11138] c 03 N70-34646

Arc electrode of graphite with ball tip Patent  
[NASA-CASE-XLE-04788] c 09 N71-22987

Trialkyl-dihalotantalum and niobium compounds Patent  
[NASA-CASE-XNP-04023] c 06 N71-28808

Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12050-1] c 35 N77-32454

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Evaporant holder  
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Tantalum modified ferritic iron base alloys  
[NASA-CASE-LEW-12095-1] c 26 N78-18182

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Thermal shock and erosion resistant tantalum carbide ceramic material  
[NASA-CASE-LAR-11902-1] c 27 N78-17206

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Thin film temperature sensor and method of making same  
[NASA-CASE-NPO-11775] c 26 N72-28761

## TAPE RECORDERS

Plural recorder system  
[NASA-CASE-XMS-06949] c 09 N69-21467

Endless tape transport mechanism Patent  
[NASA-CASE-XGS-01223] c 07 N71-10609

Low friction magnetic recording tape Patent  
[NASA-CASE-XGS-00373] c 23 N71-15978

Tape guidance system and apparatus for the provision thereof Patent  
[NASA-CASE-XNP-09453] c 08 N71-19420

Synchronous servo loop control system Patent  
[NASA-CASE-XNP-03744] c 10 N71-20448

Incremental tape recorder and data rate converter Patent  
[NASA-CASE-XNP-02778] c 08 N71-22710

Digital telemetry system Patent  
[NASA-CASE-XGS-01812] c 07 N71-23001

Tape recorder Patent  
[NASA-CASE-XGS-08259] c 14 N71-23698

Transient video signal recording with expanded playback Patent  
[NASA-CASE-ARC-10003-1] c 09 N71-25866

A dc servosystem including an ac motor Patent  
[NASA-CASE-NPO-10700] c 07 N71-33613

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[NASA-CASE-ERC-10112] c 07 N72-21119

Scan converting video tape recorder  
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Scan converting video tape recorder  
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Method of and means for testing a tape record/playback system  
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Acquisition and tracking system for optical radar  
[NASA-CASE-MFS-20125] c 16 N72-13437

Target acquisition antenna  
[NASA-CASE-GSC-10064-1] c 10 N72-22235

Intruder detection system  
[NASA-CASE-ARC-10097-2] c 07 N73-25160

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Electronic background suppression method and apparatus for a field scanning sensor  
[NASA-CASE-XGS-05211] c 07 N69-39980

Method and apparatus for contour mapping using synthetic aperture radar  
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Method of producing a storage bulb for an atomic hydrogen maser  
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Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N76-27664

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Adaptive compression of communication signals Patent  
[NASA-CASE-XLA-03076] c 07 N71-11266

Means for generating a sync signal in an FM communication system Patent  
[NASA-CASE-XNP-10830] c 07 N71-11281

Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples Patent  
[NASA-CASE-XNP-05254] c 07 N71-20791

Digital synchronizer Patent  
[NASA-CASE-NPO-10851] c 07 N71-24613

Minimal logic block encoder Patent  
[NASA-CASE-NPO-10595] c 10 N71-25917

Two carrier communication system with single transmitter  
[NASA-CASE-NPO-11548] c 07 N73-26118

Pseudonoise (PN) synchronization of data system with derivation of clock frequency from received signal for clocking receiver PN generator  
[NASA-CASE-NPO-03623] c 09 N73-28084

Coherent receiver employing nonlinear coherence detection for carrier tracking  
[NASA-CASE-NPO-11921-1] c 32 N74-30523

Pseudo-noise test set for communication system evaluation --- test signals  
[NASA-CASE-MFS-22671-1] c 35 N75-21582

Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems  
[NASA-CASE-GSC-11743-1] c 32 N75-24981

Method and apparatus for quadriphase-shift-key and linear phase modulation  
[NASA-CASE-NPO-14444-1] c 33 N81-15192

Random digital encryption secure communication system  
[NASA-CASE-MSC-18482-1] c 32 N82-31583

Method for terminal position determination in Earth terminal-to-satellite burst acquisition and synchronization  
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Pressure variable capacitor  
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Position location and data collection system and method Patent  
[NASA-CASE-GSC-10083-1] c 30 N71-16090

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[NASA-CASE-XLA-03273] c 14 N71-18699

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[NASA-CASE-XGS-02317] c 09 N71-23525

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[NASA-CASE-GSC-10131-1] c 07 N71-24624

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[NASA-CASE-NPO-10214] c 10 N71-26577

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[NASA-CASE-XNP-01472] c 14 N70-41807  
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Method for controlling vapor content of a gas  
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[NASA-CASE-XAC-10768] c 09 N71-18830

Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774

High intensity radiant energy pulse source having means for opening shutter when light flux has reached a desired level  
[NASA-CASE-ARC-10178-1] c 09 N72-17152

Thermocouple tape  
[NASA-CASE-LEW-11072-1] c 14 N73-24472

Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12050-1] c 35 N77-32454

Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053

**TEMPERATURE PROBES**

Temperature-compensating means for cavity resonator of amplifier Patent  
[NASA-CASE-XNP-00449] c 14 N70-35220

Sensing probe  
[NASA-CASE-LEW-10281-1] c 14 N72-17327

**TEMPERATURE PROFILES**

Exothermic furnace module  
[NASA-CASE-MFS-25707-1] c 35 N82-26631

**TEMPERATURE SENSORS**

Compensating radiometer  
[NASA-CASE-XLA-04556] c 14 N69-27484

Thermobulb mount Patent  
[NASA-CASE-NPO-10158] c 33 N71-16356

Mount for thermal control system Patent  
[NASA-CASE-NPO-10138] c 33 N71-16357

Heat flux measuring system Patent  
[NASA-CASE-XFR-03802] c 33 N71-23085

Temperature telemetric transmitter Patent  
[NASA-CASE-NPO-10649] c 07 N71-24840

Conically shaped cavity radiometer with a dual purpose cone winding Patent  
[NASA-CASE-XNP-09701] c 14 N71-26475

Thin film capacitive bolometer and temperature sensor Patent  
[NASA-CASE-NPO-10607] c 09 N71-27232

Thin film temperature sensor and method of making same  
[NASA-CASE-NPO-11775] c 26 N72-28761

Heat detection and compositions and devices therefor  
[NASA-CASE-NPO-10764-2] c 35 N75-25122

Optical crystal temperature gauge with fiber optic connections  
[NASA-CASE-MS-18627-1] c 74 N82-30071

Temperature averaging thermal probe  
[NASA-CASE-GSC-12795-1] c 35 N83-20085

## TEMPLATES

Microcircuit negative cutter  
[NASA-CASE-XLA-09843] c 15 N72-27485

**TENSILE STRENGTH**

Method of making fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198

Reinforced metallic composites Patent  
[NASA-CASE-XLE-00228] c 17 N70-38490

Apparatus for tensile testing Patent  
[NASA-CASE-XKS-06250] c 14 N71-15600

Method for fiberizing ceramic materials Patent  
[NASA-CASE-XNP-00597] c 18 N71-23088

Tensile strength testing device Patent  
[NASA-CASE-XNP-05634] c 15 N71-24834

Device for use in loading tension members — characterized by elongated elastic body  
[NASA-CASE-MFS-21488-1] c 14 N75-24794

Method and apparatus for strengthening boron fibers — high temperature oxidation  
[NASA-CASE-LEW-13826-1] c 24 N82-26385

Method of carbonizing polyacrylonitrile fibers  
[NASA-CASE-ARC-11261-1] c 24 N83-25789

Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297

Method for strengthening boron fibers  
[NASA-CASE-LEW-13826-2] c 24 N84-24711

**TENSILE STRESS**

Rocket nozzle test method Patent  
[NASA-CASE-NPO-10311] c 31 N71-15643

Device for measuring tensile forces  
[NASA-CASE-MFS-21728-1] c 35 N74-27865

Solid medium thermal engine  
[NASA-CASE-ARC-10461-1] c 44 N74-33379

**TENSILE TESTS**

Apparatus for tensile testing Patent  
[NASA-CASE-XKS-06250] c 14 N71-15600

Tension measurement device Patent  
[NASA-CASE-XMS-04545] c 15 N71-22878

Tensile strength testing device Patent  
[NASA-CASE-XNP-05634] c 15 N71-24834

Apparatus for remote measurement of displacement of marks on a specimen undergoing a tensile test  
[NASA-CASE-NPO-10778] c 14 N72-11364

Anti-buckling fatigue test assembly — for subjecting metal specimen to tensile and compressive loads at constant temperature  
[NASA-CASE-LAR-10426-1] c 09 N74-19528

Method and apparatus for tensile testing of metal foil  
[NASA-CASE-LAR-10208-1] c 35 N76-18400

Device for tensioning test specimens within an hermetically sealed chamber  
[NASA-CASE-MFS-23281-1] c 35 N77-22450

Tensile testing apparatus  
[NASA-CASE-LAR-13243-1] c 35 N84-20804

Method and apparatus for gripping uniaxial fibrous composite materials  
[NASA-CASE-LEW-13758-1] c 24 N84-27829

**TENSION**

Meter for use in detecting tension in straps having predetermined elastic characteristics  
[NASA-CASE-MFS-22189-1] c 35 N75-19615

**TERMINAL GUIDANCE**

Energy management system for glider type vehicle Patent  
[NASA-CASE-XFR-00756] c 02 N71-13421

Terminal guidance system — for guiding aircraft into preselected altitude and/or heading at terminal point  
[NASA-CASE-FRC-10049-1] c 04 N74-13420

Terminal guidance sensor system  
[NASA-CASE-NPO-14521-1] c 54 N79-20746

Terminal guidance sensor system — space shuttle coupling to orbiting satellites  
[NASA-CASE-NPO-14521-1] c 37 N81-27519

**TERNARY SYSTEMS**

Nicral ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505

**TERPHENYLS**

Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423

**TERRAIN**

Landing gear Patent  
[NASA-CASE-XMF-01174] c 02 N70-41589

**TERRAIN ANALYSIS**

Surface roughness measuring system — synthetic aperture radar measurements of ocean wave height and terrain peaks  
[NASA-CASE-NPO-13882-1] c 35 N79-10391

Method for observing the features characterizing the surface of a land mass  
[NASA-CASE-FRC-11013-1] c 43 N81-17499

**TEST CHAMBERS**

Exposure system for animals Patent  
[NASA-CASE-XAC-05333] c 11 N71-22875

Multiple environment materials test chamber having a multiple port X-ray tube for irradiating a plurality of samples Patent  
[NASA-CASE-XMS-02930] c 11 N71-23042

Flammability test chamber Patent  
[NASA-CASE-KSC-10126] c 11 N71-24985

Pressure seal Patent  
[NASA-CASE-NPO-10796] c 15 N71-27068

Autoignition test cell Patent  
[NASA-CASE-KSC-10198] c 11 N71-28629

Orifice gross leak tester Patent  
[NASA-CASE-ERC-10150] c 14 N71-28992

Method for measuring biaxial stress in a body subjected to stress inducing loads  
[NASA-CASE-MFS-23299-1] c 39 N77-28511

**TEST EQUIPMENT**

Dynamic Doppler simulator Patent  
[NASA-CASE-XMS-05454-1] c 07 N71-12391

Apparatus for tensile testing Patent  
[NASA-CASE-XKS-06250] c 14 N71-15600

Black-body furnace Patent  
[NASA-CASE-XLE-01399] c 33 N71-15625

Thermocouple assembly Patent  
[NASA-CASE-XNP-01659] c 14 N71-23039

Automatic fatigue test temperature programmer Patent  
[NASA-CASE-XLA-02059] c 33 N71-24276

Pulse rise time and amplitude detector Patent  
[NASA-CASE-XMF-08804] c 09 N71-24717

Resilience testing device Patent  
[NASA-CASE-XLA-08254] c 14 N71-26161

Validation device for spacecraft checkout equipment Patent  
[NASA-CASE-XKS-10543] c 07 N71-26292

Apparatus for testing wiring harness by vibration generating means  
[NASA-CASE-MS-15158-1] c 14 N72-17325

Atmospheric sampling devices  
[NASA-CASE-NPO-11373] c 13 N72-25323

Burn rate testing apparatus  
[NASA-CASE-XMS-09690] c 33 N72-25913

Linear explosive comparison  
[NASA-CASE-LAR-10800-1] c 33 N72-27959

Apparatus for vibrational testing of articles  
[NASA-CASE-GSC-11302-1] c 14 N73-13416

Test stand system for vacuum chambers  
[NASA-CASE-MFS-21362] c 11 N73-20267

Rocket borne instrument to measure electric fields inside electrified clouds  
[NASA-CASE-KSC-10730-1] c 14 N73-32318

Compression test assembly  
[NASA-CASE-LAR-10440-1] c 14 N73-32323

Wind tunnel model and method  
[NASA-CASE-LAR-10812-1] c 09 N74-17955

Anti-buckling fatigue test assembly — for subjecting metal specimen to tensile and compressive loads at constant temperature  
[NASA-CASE-LAR-10426-1] c 09 N74-19528

Method and apparatus for checking fire detectors  
[NASA-CASE-GSC-11600-1] c 35 N74-21019

Battery testing device — for testing cells of multiple-cell battery  
[NASA-CASE-MFS-20761-1] c 44 N74-27519

Signal conditioner test set  
[NASA-CASE-KSC-10750-1] c 35 N75-12270

Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N76-22509

High temperature strain gage calibration fixture  
[NASA-CASE-LAR-11500-1] c 35 N76-24523

Method of and means for testing a tape record/playback system  
[NASA-CASE-MFS-22671-2] c 35 N77-17426

Method of and means for testing a glancing-incidence mirror system of an X-ray telescope  
[NASA-CASE-MFS-22409-2] c 74 N78-15880

Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274

**TEST FACILITIES**

Electric propulsion engine test chamber Patent  
[NASA-CASE-XLE-00252] c 11 N70-34844

High temperature testing apparatus Patent  
[NASA-CASE-XLE-00335] c 14 N70-35368

Gas analyzer for bi-gaseous mixtures Patent  
[NASA-CASE-XLA-01131] c 14 N71-10774

Model launcher for wind tunnels Patent  
[NASA-CASE-XNP-03578] c 11 N71-23030

Shock tube bypass piston tunnel  
[NASA-CASE-NPO-12109] c 11 N72-22245

**TEST STANDS**

Automatic balancing device Patent  
[NASA-CASE-LAR-10774] c 10 N71-13545

Micro-pound extended range thrust stand Patent  
[NASA-CASE-GSC-10710-1] c 28 N71-27094

**TEST VEHICLES**

Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768



## TETHERED SATELLITES

- Tetherline system for orbiting satellites  
[NASA-CASE-MFS-23564-1] c 15 N78-25119
- TETHERING**  
Cable arrangement for rigid tethering Patent  
[NASA-CASE-XLA-02332] c 32 N71-17609  
Inflatable tether Patent  
[NASA-CASE-XMS-10993] c 15 N71-28936
- TETHERLINES**  
Flexible/rigidifiable cable assembly  
[NASA-CASE-MSC-13512-1] c 15 N72-22485  
Tetherline system for orbiting satellites  
[NASA-CASE-MFS-23564-1] c 15 N78-25119
- TETRAETHYL ORTHOSILICATE**  
Thermal protection system  
[NASA-CASE-MSC-18796-1] c 24 N82-26389  
Densification of porous refractory substrates --- space shuttle orbiter tiles  
[NASA-CASE-MSC-18737-1] c 24 N83-13171  
Method of repairing surface damage to porous refractory substrates --- space shuttle orbiter tiles  
[NASA-CASE-MSC-18736-1] c 24 N83-13172
- TETRAPHENYLS**  
Metal containing polymers from cyclic tetrameric phenylphosphonitridamides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363
- TEXTILES**  
Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405
- TEXTURES**  
Modification of the electrical and optical properties of polymers --- ion irradiation to create texture  
[NASA-CASE-LEW-13027-1] c 27 N80-24437  
Texturing polymer surfaces by transfer casting --- cardiovascular prosthesis  
[NASA-CASE-LEW-13120-1] c 27 N82-28440  
Surface texturing of fluoropolymers  
[NASA-CASE-LEW-13028-1] c 27 N82-33521  
Ion sputter textured graphite --- anode collector plates in electron tube devices  
[NASA-CASE-LEW-12919-1] c 24 N83-10117
- THERAPY**  
Hyperthermia heating apparatus --- cancer therapy  
[NASA-CASE-NPO-14549-2] c 52 N82-33996
- THERMAL ABSORPTION**  
Constant temperature heat sink for calorimeters Patent  
[NASA-CASE-XMF-04208] c 33 N71-29051  
Solar pond  
[NASA-CASE-NPO-13581-2] c 44 N78-31525
- THERMAL COMFORT**  
Thermal garment  
[NASA-CASE-XMS-03694-1] c 54 N82-29002
- THERMAL CONDUCTIVITY**  
Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent  
[NASA-CASE-XLE-00266] c 14 N70-34156  
Apparatus for measuring thermal conductivity Patent  
[NASA-CASE-XGS-01052] c 14 N71-15992  
Heated element fluid flow sensor Patent  
[NASA-CASE-MSC-12084-1] c 12 N71-17569  
Method and apparatus for varying thermal conductivity Patent  
[NASA-CASE-XNP-05524] c 33 N71-24876  
Thermally conductive polymers  
[NASA-CASE-GSC-11304-1] c 06 N72-21105  
Electrostatically controlled heat shutter  
[NASA-CASE-NPO-11942-1] c 33 N73-32818  
Thermal barrier coating system  
[NASA-CASE-LEW-12554-1] c 34 N78-18355  
Support assembly for cryogenically coolable low-noise choke waveguide  
[NASA-CASE-NPO-14253-1] c 32 N80-32605  
Automatic thermal switch --- spacecraft applications  
[NASA-CASE-GSC-12553-1] c 34 N83-28356
- THERMAL CONDUCTORS**  
Thermal conductive connection and method of making same Patent  
[NASA-CASE-XMS-02087] c 09 N70-41717  
Solar energy absorber  
[NASA-CASE-MFS-22743-1] c 44 N76-22657
- THERMAL CONTROL COATINGS**  
Thermal control coating Patent  
[NASA-CASE-XLA-01995] c 18 N71-23047  
Stabilized zinc oxide coating compositions Patent  
[NASA-CASE-XMF-07770-2] c 18 N71-26772  
Inorganic thermal control coatings  
[NASA-CASE-MFS-20011] c 18 N72-22566  
Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines  
[NASA-CASE-ARC-10325] c 06 N72-25147  
Refractory porcelain enamel passive control coating for high temperature alloys  
[NASA-CASE-MFS-22324-1] c 27 N75-27160

- Particulate and solar radiation stable coating for spacecraft  
[NASA-CASE-LAR-10805-2] c 34 N77-18382  
Method of preparing zinc orthotitanate pigment  
[NASA-CASE-MFS-23345-1] c 27 N77-30237  
Intumescent coatings containing 4,4'-dinitrosulfanilide  
[NASA-CASE-ARC-11042-1] c 24 N78-14096  
Thermal barrier coating system  
[NASA-CASE-LEW-12554-1] c 34 N78-18355  
High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings  
[NASA-CASE-NPO-13690-1] c 27 N78-19302  
Intumescent-ablator coatings using endothermic fillers  
[NASA-CASE-ARC-11043-1] c 24 N78-27180  
Lightweight electrically-powered flexible thermal laminate --- made of metal and nonconductive yarns  
[NASA-CASE-MSC-12662-1] c 33 N79-12331  
Electrically conductive thermal control coatings  
[NASA-CASE-GSC-12207-1] c 24 N79-14156  
Improved thermal barrier coating system  
[NASA-CASE-LEW-13324-1] c 26 N82-26431  
High temperature emittance coatings and coating compositions --- repairing damaged space shuttle tiles in space  
[NASA-CASE-MSC-18851-1] c 27 N82-26460  
Improved thermal barrier coating system  
[NASA-CASE-LEW-13324-2] c 26 N83-34014  
High temperature glass thermal control structure and coating --- for application to spacecraft reusable heat shielding  
[NASA-CASE-ARC-11164-1] c 44 N83-34448  
Variable anodic thermal control coating  
[NASA-CASE-LAR-12719-1] c 44 N83-34449
- THERMAL CYCLING TESTS**  
Reusable thermal cycling clamp --- holders for directional solidification experiments  
[NASA-CASE-LAR-12868-1] c 27 N82-18390
- THERMAL DEGRADATION**  
Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N69-25146  
Electrical apparatus for detection of thermal decomposition of insulation Patent  
[NASA-CASE-XMF-03968] c 14 N71-27186
- THERMAL DIFFUSIVITY**  
Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect  
[NASA-CASE-NPO-14657-1] c 74 N81-17887
- THERMAL EMISSION**  
Electromagnetic radiation energy arrangement --- coatings for solar energy absorption and infrared reflection  
[NASA-CASE-WOO-00428-1] c 32 N79-19186
- THERMAL ENERGY**  
Energy conversion apparatus Patent  
[NASA-CASE-XLE-00212] c 03 N70-34134  
Device for directionally controlling electromagnetic radiation Patent  
[NASA-CASE-XLE-01716] c 09 N70-40234  
Thermally activated foaming compositions Patent  
[NASA-CASE-LAR-10373-1] c 18 N71-26155  
Gas core nuclear reactor Patent  
[NASA-CASE-LEW-10250-1] c 22 N71-28759  
Electrostatically controlled heat shutter  
[NASA-CASE-NPO-11942-1] c 33 N73-32818  
Solid medium thermal engine  
[NASA-CASE-ARC-10461-1] c 44 N74-33379  
Panel for selectively absorbing solar thermal energy and the method of producing said panel  
[NASA-CASE-MFS-22562-1] c 44 N76-14595  
Thermal energy storage system --- operating on superheating of liquids  
[NASA-CASE-MFS-23167-1] c 44 N76-31667  
Low to high temperature energy conversion system  
[NASA-CASE-NPO-13510-1] c 44 N77-32581  
Thermal energy transformer  
[NASA-CASE-NPO-14058-1] c 44 N79-18443  
Apparatus for improving the fuel efficiency of a gas turbine engine  
[NASA-CASE-LEW-13142-1] c 07 N83-36029
- THERMAL EXPANSION**  
Thermally operated valve Patent  
[NASA-CASE-XLE-00815] c 15 N70-35407  
Adjustable mount for a trihedral mirror Patent  
[NASA-CASE-XNP-08907] c 23 N71-29123  
Thermal motor  
[NASA-CASE-NPO-11283] c 09 N72-25260  
Glass-to-metal seals comprising relatively high expansion metals  
[NASA-CASE-LEW-10698-1] c 37 N74-21063  
Daze fasteners  
[NASA-CASE-LAR-13009-1] c 37 N83-29706
- THERMAL FATIGUE**  
Automatic fatigue test temperature programmer Patent  
[NASA-CASE-XLA-02059] c 33 N71-24276

## THERMAL INSULATION

- Piping arrangement through a double chamber structure  
[NASA-CASE-XNP-08882] c 15 N69-39935  
Insulating structure Patent  
[NASA-CASE-XMF-00341] c 15 N70-33323  
Unfired-ceramic flame-resistant insulation and method of making the same Patent  
[NASA-CASE-XMF-01030] c 18 N70-41583  
Techniques for insulating cryogenic fuel containers Patent  
[NASA-CASE-XLA-01967] c 31 N70-42015  
Lightweight refractory insulation and method of preparing the same Patent  
[NASA-CASE-XMF-05279] c 18 N71-16124  
Heat protection apparatus Patent  
[NASA-CASE-XLA-00892] c 33 N71-17897  
Cryogenic insulation system Patent  
[NASA-CASE-XLE-04222] c 23 N71-22881  
Insulation system Patent  
[NASA-CASE-XLE-02647] c 18 N71-23658  
Filament wound container Patent  
[NASA-CASE-XLE-03803] c 15 N71-23816  
Panelized high performance multilayer insulation Patent  
[NASA-CASE-MFS-14023] c 33 N71-25351  
Isothermal cover with thermal reservoirs Patent  
[NASA-CASE-MFS-20355] c 33 N71-25353  
Fabric for micrometeoroid protection garment Patent  
[NASA-CASE-MSC-12109] c 18 N71-26285  
Thickness measuring and injection device Patent  
[NASA-CASE-MFS-20261] c 14 N71-27005  
Cryogenic thermal insulation Patent  
[NASA-CASE-XMF-05046] c 33 N71-28892  
Intumescent composition, foamed product prepared therewith, and process for making same  
[NASA-CASE-ARC-10304-1] c 18 N73-26572  
Thermal control system for a spacecraft modular housing  
[NASA-CASE-GSC-11018-1] c 31 N73-30829  
Heater-mixer for stored fluids  
[NASA-CASE-ARC-10442-1] c 35 N74-15093  
Intumescent composition, foamed product prepared therewith and process for making same  
[NASA-CASE-ARC-10304-2] c 27 N74-27037  
High current electrical lead --- for thermionic converters  
[NASA-CASE-LEW-10950-1] c 33 N74-27683  
Structural heat pipe --- for spacecraft wall thermal insulation system  
[NASA-CASE-GSC-11619-1] c 34 N75-12222  
Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts  
[NASA-CASE-MSC-14182-1] c 27 N76-14264  
Auger attachment method for insulation --- of spacecraft  
[NASA-CASE-MSC-12615-1] c 37 N76-19437  
Flexible pile thermal barrier insulator  
[NASA-CASE-MSC-19568-1] c 34 N78-25350  
Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under ceramic tiles  
[NASA-CASE-MSC-12619-2] c 27 N79-12221  
Diced tile thermal protection for spacecraft  
[NASA-CASE-MSC-18366-1] c 24 N79-23142  
Fibrous refractory composite insulation --- shielding reusable spacecraft  
[NASA-CASE-ARC-11169-1] c 24 N79-24062  
Thermal insulation protection means  
[NASA-CASE-MSC-12737-1] c 24 N79-25142  
Installing fiber insulation  
[NASA-CASE-MSC-16973-1] c 37 N81-14317  
Process for the preparation of polycarbonylphosphazenes --- thermal insulation  
[NASA-CASE-ARC-11176-2] c 27 N81-27271  
Carboranylchlorophosphazenes and their polymers --- thermal insulation  
[NASA-CASE-ARC-11176-1] c 27 N82-18389  
A method and technique for installing light-weight fragile, high-temperature fiber insulation  
[NASA-CASE-MSC-18934-3] c 24 N82-26387  
Thermal garment  
[NASA-CASE-XNP-03694-1] c 54 N82-29002  
Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903  
Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297  
Method and technique for installing light-weight, fragile, high-temperature fiber insulation  
[NASA-CASE-MSC-16934-3] c 24 N84-16262
- THERMAL PLASMAS**  
Continuous plasma light source  
[NASA-CASE-XNP-04167-2] c 25 N72-24753
- THERMAL PROTECTION**  
Thermo-protective device for balances Patent  
[NASA-CASE-XAC-00648] c 14 N70-40400

Ablation structures Patent  
[NASA-CASE-XMS-01816] c 33 N71-15623

Spacecraft radiator cover Patent  
[NASA-CASE-MSC-12049] c 31 N71-16080

Foamed in place ceramic refractory insulating material Patent  
[NASA-CASE-XGS-02435] c 18 N71-22998

Ceramic insulation for radiant heating environments and method of preparing the same Patent  
[NASA-CASE-MFS-14253] c 33 N71-24858

Solid state thermal control polymer coating Patent  
[NASA-CASE-XLA-01745] c 33 N71-28903

Temperature reducing coating for metals subject to flame exposure Patent  
[NASA-CASE-XLE-00035] c 33 N71-29151

Stand-off type ablative heat shield  
[NASA-CASE-MSC-12143-1] c 33 N72-17947

Flexible fire retardant foam  
[NASA-CASE-ARC-10180-1] c 28 N72-20767

Flexible fire retardant polyisocyanate modified neoprene foam — for thermal protective devices  
[NASA-CASE-ARC-10180-1] c 27 N74-12814

Adjustable securing base  
[NASA-CASE-MSC-19666-1] c 37 N78-17383

Reaction cured glass and glass coatings  
[NASA-CASE-ARC-11051-1] c 27 N78-32260

Diced tile thermal protection for spacecraft  
[NASA-CASE-MSC-16366-1] c 24 N79-23142

Corrosion resistant thermal barrier coating — protecting gas turbines and other engine parts  
[NASA-CASE-LEW-13088-1] c 26 N81-25188

Thermal protection system  
[NASA-CASE-MSC-18796-1] c 24 N82-26389

Spray applicator for spraying coatings and other fluids in space  
[NASA-CASE-MSC-18852-1] c 37 N82-28640

Attachment system for silica tiles — thermal protection for space shuttle orbiter  
[NASA-CASE-MSC-18741-1] c 27 N82-29456

Multilayer thermal protection system  
[NASA-CASE-LAR-12820-1] c 24 N82-32417

High temperature silicon carbide impregnated insulating fabrics  
[NASA-CASE-MSC-18832-1] c 27 N83-18908

Silicon-slurry/aluminide coating — protecting gas turbine engine vanes and blades  
[NASA-CASE-LEW-13343] c 26 N83-31795

Thermal barrier coating system having improved adhesion  
[NASA-CASE-LEW-1335901] c 27 N83-31855

Covering solid, film cooled surfaces with a duplex thermal barrier coating  
[NASA-CASE-LEW-13450-1] c 31 N83-35177

Pre-stressed thermal protection systems  
[NASA-CASE-MSC-20254-1] c 16 N84-22601

Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886

Improved thermal barrier coating system  
[NASA-CASE-LEW-14057-1] c 27 N84-33595

**THERMAL RADIATION**

Compensating radiometer  
[NASA-CASE-XLA-04556] c 14 N69-27484

Temperature sensitive capacitor device  
[NASA-CASE-XNP-09750] c 14 N69-39937

High temperature heat source Patent  
[NASA-CASE-XLE-00490] c 33 N70-34545

Thermal radiation shielding Patent  
[NASA-CASE-XLE-03432] c 33 N71-24145

Cavity radiometer Patent  
[NASA-CASE-XNP-08961] c 14 N71-24809

Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent  
[NASA-CASE-XNP-01310] c 33 N71-28852

**THERMAL REACTORS**

Non-equilibrium radiation nuclear reactor  
[NASA-CASE-HQN-10841-1] c 73 N78-19920

**THERMAL RESISTANCE**

Diode and protection fuse unit Patent  
[NASA-CASE-XKS-03381] c 09 N71-22796

Polyimide foam for the thermal insulation and fire protection  
[NASA-CASE-ARC-10464-1] c 27 N74-12812

Dual measurement ablation sensor  
[NASA-CASE-LAR-10105-1] c 34 N74-15652

Self-regulating proportionally controlled heating apparatus and technique  
[NASA-CASE-GSC-11752-1] c 77 N75-20140

Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-1] c 27 N78-32256

Ambient cure polyimide foams — thermal resistant foams  
[NASA-CASE-ARC-11170-1] c 27 N79-11215

The 1,2,4-oxadiazole elastomers — heat resistant polymers  
[NASA-CASE-ARC-11253-1] c 27 N81-17262

Surface conforming thermal/pressure seal — tail assemblies of space shuttle orbiters  
[NASA-CASE-MSC-18422-1] c 37 N82-16408

Reusable thermal cycling clamp — holders for directional solidification experiments  
[NASA-CASE-LAR-12868-1] c 27 N82-18390

Amine terminated bispartimides, process for preparation thereof, and polymers thereof  
[NASA-CASE-ARC-11421-1] c 27 N84-16340

Fire and heat resistant laminating resins based on maleimido substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697

Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-2] c 54 N84-23113

Phenoxy resins containing pendent ethynyl groups and cured resins therefrom  
[NASA-CASE-LAR-13262-1] c 27 N84-24805

Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-1] c 54 N84-28484

**THERMAL SHOCK**

Thermal shock apparatus Patent  
[NASA-CASE-XLE-02024] c 14 N71-22964

Thermal shock resistant hafnia ceramic material  
[NASA-CASE-LAR-10894-1] c 18 N73-14584

Thermal shock and erosion resistant tantalum carbide ceramic material  
[NASA-CASE-LAR-11902-1] c 27 N78-17206

Laser surface fusion of plasma sprayed ceramic turbine seals  
[NASA-CASE-LEW-13269-1] c 18 N83-20996

**THERMAL SIMULATION**

Thermopile vacuum gage tube simulator Patent  
[NASA-CASE-XLA-02758] c 14 N71-18481

**THERMAL STABILITY**

Bonded solid lubricant coating Patent  
[NASA-CASE-XMS-00259] c 18 N70-36400

Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203

Metal containing polymers from cyclic tetrameric phenylphosphonitriamides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363

Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28729

Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21156

Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N76-32315

Sound-suppressing structure with thermal relief  
[NASA-CASE-LEW-12658-1] c 71 N79-14871

Infusible silazane polymer and process for producing same — protective coatings  
[NASA-CASE-XMF-02526-1] c 27 N79-21190

Catalytic trimerization of aromatic nitriles and triaryl-a-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby  
[NASA-CASE-LEW-12053-2] c 27 N79-28307

Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206

Improved high temperature resistant polyimides  
[NASA-CASE-LEW-13864-1] c 27 N83-17715

A solvent resistant, thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-29391

Low temperature cross linking polyimides  
[NASA-CASE-LEW-12876-2] c 27 N83-29392

Process for preparing phthalocyanine polymers  
[NASA-CASE-ARC-11511-1] c 23 N84-16259

Metal phthalocyanine polymers  
[NASA-CASE-ARC-11405-1] c 27 N84-27884

Sulfone-ester polymers containing pendent ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987

Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988

Stabilized unsaturated polyesters  
[NASA-CASE-NPO-16103-1] c 27 N84-32530

**THERMAL STRESSES**

Strain gage Patent Application  
[NASA-CASE-FRC-10053] c 14 N70-35587

Multilegged support system Patent  
[NASA-CASE-XLA-01326] c 11 N71-21481

Low cycle fatigue testing machine  
[NASA-CASE-LAR-10270-1] c 32 N72-25877

Apparatus and method for reducing thermal stress in a turbine rotor  
[NASA-CASE-LEW-12232-1] c 07 N79-10057

Method for alleviating thermal stress damage in laminates — metal matrix composites  
[NASA-CASE-LEW-12493-1] c 24 N81-17170

Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-2] c 24 N81-26179

Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-2] c 37 N82-26674

**THERMIONIC CATHODES**

Cavity emitter for thermionic converter Patent  
[NASA-CASE-NPO-10412] c 09 N71-28421

**THERMIONIC CONVERTERS**

Triode thermionic energy converter  
[NASA-CASE-XLE-01015] c 03 N69-39898

Thermionic converter with current augmented by self induced magnetic field Patent  
[NASA-CASE-XLE-01903] c 22 N71-23599

Cavity emitter for thermionic converter Patent  
[NASA-CASE-NPO-10412] c 09 N71-28421

Solar cell Patent  
[NASA-CASE-ARC-10050] c 03 N71-33409

Uninsulated in-core thermionic diode  
[NASA-CASE-NPO-10542] c 09 N72-27228

High current electrical lead — for thermionic converters  
[NASA-CASE-LEW-10950-1] c 33 N74-27683

Electric power generation system directory from laser power  
[NASA-CASE-NPO-13308-1] c 36 N75-30524

Nuclear thermionic converter — tungsten-thorium oxide rods  
[NASA-CASE-NPO-13121-1] c 73 N77-18891

High thermal power density heat transfer — thermionic converters  
[NASA-CASE-LEW-12950-1] c 34 N82-11399

High thermal power density heat transfer apparatus providing electrical isolation at high temperature using heat pipes  
[NASA-CASE-LEW-12950-2] c 44 N83-29804

Thermionic energy converters  
[NASA-CASE-LEW-12443-1] c 44 N83-32175

Thermionic-photovoltaic energy converter  
[NASA-CASE-LEW-14077-1] c 44 N84-20918

**THERMIONIC DIODES**

Heat pipe thermionic diode power system Patent  
[NASA-CASE-XMF-05843] c 03 N71-11055

Thermionic diode switch Patent  
[NASA-CASE-NPO-10404] c 03 N71-12255

Micro current measuring device using plural logarithmic response heated filamentary type diodes Patent  
[NASA-CASE-XNP-00384] c 09 N71-13530

Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114] c 33 N71-27862

Uninsulated in-core thermionic diode  
[NASA-CASE-NPO-10542] c 09 N72-27228

**THERMIONIC EMITTERS**

Thermionic tantalum emitter doped with oxygen Patent Application  
[NASA-CASE-NPO-11138] c 03 N70-34646

**THERMIONIC POWER GENERATION**

Control for nuclear thermionic power source  
[NASA-CASE-NPO-13114-2] c 73 N78-28913

**THERMISTORS**

Matched thermistors for microwave power meters Patent  
[NASA-CASE-NPO-10348] c 10 N71-12554

Thermistor holder for skin temperature measurements  
[NASA-CASE-ARC-10855-1] c 52 N77-10780

Wedge immersed thermistor bolometers  
[NASA-CASE-XGS-01245-1] c 35 N79-33449

**THERMOCHEMISTRY**

Thermochemical generation of hydrogen  
[NASA-CASE-NPO-15015-1] c 25 N82-28368

**THERMOCHROMATIC MATERIALS**

Heat detection and compositions and devices therefor  
[NASA-CASE-NPO-10764-1] c 14 N73-14428

Heat detection and compositions and devices therefor  
[NASA-CASE-NPO-10764-2] c 35 N75-25122

**THERMOCOUPLE PYROMETERS**

Dual measurement ablation sensor  
[NASA-CASE-LAR-10105-1] c 34 N74-15652

**THERMOCOUPLES**

Heat flux sensor assembly  
[NASA-CASE-XMS-05909-1] c 14 N69-27459

Gas cooled high temperature thermocouple Patent  
[NASA-CASE-XLE-09475-1] c 33 N71-15568

Weld control system using thermocouple wire Patent  
[NASA-CASE-MFS-06074] c 15 N71-20393

Heat sensing instrument Patent  
[NASA-CASE-XLA-01551] c 14 N71-22989

Thermocouple assembly Patent  
[NASA-CASE-XNP-01859] c 14 N71-23039

Fluid phase analyzer Patent  
[NASA-CASE-NPO-10691] c 14 N71-26199

Apparatus for sensing temperature  
[NASA-CASE-XLE-05230] c 14 N72-27410

Method of making apparatus for sensing temperature  
[NASA-CASE-XLE-05230-2] c 14 N73-13417

Butt welder for fine gauge tungsten/rhenium thermocouple wire  
[NASA-CASE-LAR-10103-1] c 15 N73-14468

Thermocouple tape  
[NASA-CASE-LEW-11072-1] c 14 N73-24472

## THERMODYNAMIC CYCLES

- Thermocouple tape — developed from thermoelectrically different metals  
[NASA-CASE-LEW-11072-2] c 35 N76-15434
- Thermocouple installation  
[NASA-CASE-NPO-13540-1] c 35 N77-14409
- Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12050-1] c 35 N77-32454
- Thermocouples of molybdenum and indium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12174-2] c 35 N79-14346
- Thermocouple, multiple junction reference oven  
[NASA-CASE-FRC-10112-1] c 35 N81-26431
- Solar energy control system — temperature measurement  
[NASA-CASE-MFS-25287-1] c 44 N82-18686
- Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338

## THERMODYNAMIC CYCLES

- Solar engine  
[NASA-CASE-LAR-12148-1] c 44 N82-24640

## THERMODYNAMIC EFFICIENCY

- Automatic compression adjusting mechanism for internal combustion engines  
[NASA-CASE-MSC-18807-1] c 37 N83-36483

## THERMODYNAMIC PROPERTIES

- Thermal shock apparatus Patent  
[NASA-CASE-XLE-02024] c 14 N71-22964
- Foamed in place ceramic refractory insulating material Patent  
[NASA-CASE-XGS-02435] c 18 N71-22998
- Superconducting magnet Patent  
[NASA-CASE-XNP-06503] c 23 N71-29049
- Cobalt-base alloy  
[NASA-CASE-LEW-10436-1] c 17 N73-32415
- High stability amplifier  
[NASA-CASE-GSC-12646-1] c 33 N83-34191

## THERMOELECTRIC GENERATORS

- Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N69-25146
- Segmenting lead telluride-silicon germanium thermoelements Patent  
[NASA-CASE-XGS-05718] c 26 N71-16037
- Integrated thermoelectric generator/space antenna combination  
[NASA-CASE-XER-09521] c 09 N72-12136
- Thermally cascaded thermoelectric generator  
[NASA-CASE-NPO-10753] c 03 N72-26031
- Thermionic-photovoltaic energy converter  
[NASA-CASE-LEW-14077-1] c 44 N84-20918

## THERMOELECTRIC MATERIALS

- Bonding thermoelectric elements to nonmagnetic refractory metal electrodes  
[NASA-CASE-XGS-04554] c 15 N69-39786
- Segmenting lead telluride-silicon germanium thermoelements Patent  
[NASA-CASE-XGS-05718] c 26 N71-16037
- Stabilized lanthanum sulphur compounds — thermoelectric materials  
[NASA-CASE-NPO-16135-1] c 25 N83-24572

## THERMOELECTRIC POWER GENERATION

- Two-fluid magnetohydrodynamic system and method for thermal-electric power conversion Patent  
[NASA-CASE-XNP-00644] c 03 N70-36803
- Combined electrolysis device and fuel cell and method of operation Patent  
[NASA-CASE-XLE-01645] c 03 N71-20904
- Thermoelectric power system — for spacecraft  
[NASA-CASE-MFS-22002-1] c 44 N76-16612

## THERMOELECTRICITY

- Thermocouple tape  
[NASA-CASE-LEW-11072-1] c 14 N73-24472
- Apparatus and method for measuring the Seebeck coefficient and resistivity of materials  
[NASA-CASE-NPO-11749] c 14 N73-28486

## THERMOGRAVIMETRY

- High performance filletting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490

## THERMOLUMINESCENCE

- Method of detecting oxygen in a gas  
[NASA-CASE-LAR-10668-1] c 06 N73-16106
- Thermoluminescent aerosol analysis  
[NASA-CASE-LAR-12046-1] c 25 N78-15210

## THERMOMAGNETIC EFFECTS

- Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control  
[NASA-CASE-NPO-11317-2] c 36 N74-13205
- Thermomagnetic recording and magnetic-optic playback system  
[NASA-CASE-NPO-10872-1] c 35 N79-16246

## THERMOMETERS

- Platinum resistance thermometer circuit  
[NASA-CASE-MSC-12327-1] c 35 N77-27368

## THERMOPHYSICAL PROPERTIES

- Method for determining thermo-physical properties of specimens — photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel  
[NASA-CASE-LAR-11053-1] c 25 N74-18551
- Apparatus for determining thermophysical properties of test specimens  
[NASA-CASE-LAR-11883-1] c 09 N77-27131

## THERMOPILES

- Differential temperature transducer Patent  
[NASA-CASE-XAC-00812] c 14 N71-15598
- Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent  
[NASA-CASE-XNP-06957] c 14 N71-21088
- Irradiance measuring device  
[NASA-CASE-NPO-11493] c 14 N73-12447

## THERMOPLASTIC FILMS

- Advanced inorganic separators for alkaline batteries  
[NASA-CASE-LEW-13171-1] c 44 N82-29708
- Hot melt recharge system — repairing damaged or missing tiles on space shuttle orbiter  
[NASA-CASE-LAR-12881-1] c 27 N84-14323
- Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324

## THERMOPLASTIC RESINS

- Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge  
[NASA-CASE-ARC-11057-1] c 27 N78-31233
- Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluiding oil  
[NASA-CASE-NPO-08835-1] c 27 N78-33228
- Membrane consisting of polyquaternary amine ion exchange polymer network interpenetrating the chains of thermoplastic matrix polymer  
[NASA-CASE-NPO-14001-1] c 27 N81-14076
- Thermoset-thermoplastic aromatic polyamides  
[NASA-CASE-LAR-12723-1] c 27 N81-15107
- Method of making formulated plastic separators for soluble electrode cells  
[NASA-CASE-LEW-12358-2] c 25 N82-21268
- Induction heating gun  
[NASA-CASE-LAR-12540-2] c 27 N82-24345
- One-step dual purpose joining technique  
[NASA-CASE-LAR-12595-1] c 33 N82-26571
- Advanced inorganic separators for alkaline batteries  
[NASA-CASE-LEW-13171-1] c 44 N82-29708
- Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591
- Advanced inorganic separators for alkaline batteries and method of making the same  
[NASA-CASE-LEW-13171-2] c 44 N83-32176
- Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups — for thermoplastic resins  
[NASA-CASE-LAR-12838-1] c 27 N83-34040
- Solvent resistant thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-1] c 27 N83-34041
- Ethynyl and substituted ethynyl-terminated polysulfones  
[NASA-CASE-LAR-12931-1] c 27 N84-22747

## THERMOPLASTICITY

- Process for preparing thermoplastic aromatic polyimides  
[NASA-CASE-LAR-11828-1] c 27 N78-32261
- Heat sealable, flame and abrasion resistant coated fabric — clothing and containers for space exploration  
[NASA-CASE-MSC-18382-1] c 27 N82-16238
- A solvent resistant, thermoplastic aromatic poly(imidesulfone) and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-29391
- Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746

## THERMOREGULATION

- Garments for controlling the temperature of the body Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147

## THERMOSETTING RESINS

- Method for molding compounds Patent  
[NASA-CASE-XLA-01091] c 15 N71-10672
- Method and apparatus for bonding a plastics sleeve onto a metallic body Patent  
[NASA-CASE-XLA-01262] c 15 N71-21404
- Honeycomb panel and method of making same Patent  
[NASA-CASE-XMF-01402] c 18 N71-21651
- Method of forming shapes from planar sheets of thermosetting materials  
[NASA-CASE-NPO-11036] c 15 N72-24522
- Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-2] c 06 N72-27151
- Evacuated displacement compression molding  
[NASA-CASE-LAR-10782-1] c 31 N74-14133

Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article

- [NASA-CASE-LAR-10489-1] c 31 N74-18124
- Evacuated, displacement compression mold — of tubular bodies from thermosetting plastics  
[NASA-CASE-LAR-10782-2] c 31 N75-13111
- Cork-resin ablative insulation for complex surfaces and method for applying the same  
[NASA-CASE-MFS-23626-1] c 24 N80-26388
- Thermoset-thermoplastic aromatic polyamides  
[NASA-CASE-LAR-12723-1] c 27 N81-15107
- Polymeric compositions and their method of manufacture — forming filled polymer systems using cryogenics  
[NASA-CASE-NPO-10424-1] c 27 N81-24258
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775-1] c 27 N83-28240

## THERMOSTATS

- Thermal switch Patent  
[NASA-CASE-XNP-00463] c 33 N70-36847
- Thermostatic actuator  
[NASA-CASE-NPO-10637] c 15 N72-12409
- Thermostatically controlled non-tracking type solar energy concentrator  
[NASA-CASE-NPO-13497-1] c 44 N76-14602

## THICK FILMS

- Screened circuit capacitors  
[NASA-CASE-LAR-10294-1] c 26 N72-28762

## THICKNESS

- Myocardium wall thickness transducer and measuring method  
[NASA-CASE-NPO-13644-1] c 52 N76-29895
- Thickness measurement system  
[NASA-CASE-MFS-23721-1] c 31 N79-28370
- Strong thin membrane structure — solar sails  
[NASA-CASE-NPO-14021-2] c 27 N80-16163

## THIN FILMS

- Temperature sensitive capacitor device  
[NASA-CASE-XNP-09750] c 14 N69-39937
- Means and methods of depositing thin films on substrates Patent  
[NASA-CASE-XNP-00595] c 15 N70-34967
- Method of forming thin window drifted silicon charged particle detector Patent  
[NASA-CASE-XLE-00808] c 24 N71-10560
- Vacuum deposition apparatus Patent  
[NASA-CASE-XMF-01667] c 15 N71-17647
- GaAs solar detector using manganese as a doping agent Patent  
[NASA-CASE-XNP-01328] c 26 N71-18064
- Stable amplifier having a stable quiescent point Patent  
[NASA-CASE-XGS-02812] c 09 N71-19466
- Evaporant source for vapor deposition Patent  
[NASA-CASE-XMF-00605] c 15 N71-20395
- Method of electrolytically binding a layer of semiconductors together Patent  
[NASA-CASE-XNP-01959] c 26 N71-23043
- Vacuum evaporator with electromagnetic ion steering Patent  
[NASA-CASE-NPO-10331] c 09 N71-26701
- Magnetic recording head and method of making same Patent  
[NASA-CASE-GSC-10097-1] c 08 N71-27210
- Thin film capacitive bolometer and temperature sensor Patent  
[NASA-CASE-NPO-10607] c 09 N71-27232
- Microelectronic module package Patent  
[NASA-CASE-XMS-02182] c 10 N71-28783
- Fabrication of single crystal film semiconductor devices  
[NASA-CASE-ERC-10222] c 09 N72-22199
- Active microwave irises and windows  
[NASA-CASE-XMF-10513-1] c 07 N72-25170
- Light regulator  
[NASA-CASE-LAR-10836-1] c 26 N72-27784
- Thin film microwave iris  
[NASA-CASE-LAR-10511-1] c 09 N72-29172
- Method of forming transparent films of ZnO  
[NASA-CASE-FRC-10019] c 15 N73-12487
- Light intensity strain analysis  
[NASA-CASE-LAR-10765-1] c 32 N73-20740
- Monitoring deposition of films  
[NASA-CASE-MFS-20675] c 26 N73-26751
- Holographic thin film analyzer  
[NASA-CASE-MFS-20823-1] c 16 N73-30476
- Transparent switchboard  
[NASA-CASE-MSC-13746-1] c 10 N73-32143
- Method for determining thermo-physical properties of specimens — photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel  
[NASA-CASE-LAR-11053-1] c 25 N74-18551

- Method of preparing water purification membranes — polymerization of allyl amine as thin films in plasma discharge  
[NASA-CASE-ARC-10643-1] c 25 N75-12087
- System for depositing thin films  
[NASA-CASE-MFS-20775-1] c 31 N75-12161
- Method of producing a storage bulb for an atomic hydrogen maser  
[NASA-CASE-NPO-13050-1] c 36 N75-15029
- Integrated structure vacuum tube  
[NASA-CASE-ARC-10445-1] c 31 N76-31365
- Method of forming metal hydride films  
[NASA-CASE-LEW-12083-1] c 37 N78-13438
- Strong thin membrane structure — solar sails  
[NASA-CASE-NPO-14021-2] c 27 N80-16163
- Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MSC-18172-1] c 26 N80-19237
- Partial interlaminar separation system for composites  
[NASA-CASE-LAR-12065-1] c 24 N81-14000
- Corrosion resistant coating  
[NASA-CASE-NPO-15928-1] c 26 N84-12289
- Thin film strain transducer — in-flight monitoring of balloon film strain  
[US-PATENT-APPL-SN-526770] c 35 N84-12448
- Laser activated MTOS microwave device  
[NASA-CASE-NPO-16112-1] c 36 N84-12463
- Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015
- Integrating IR detector imaging systems  
[NASA-CASE-NPO-15805-1] c 74 N84-28590
- Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986
- Glass heating panels and method for preparing the same from architectural reflective glass  
[NASA-CASE-NPO-15753-1] c 27 N84-33589
- Epitaxial thinning process  
[NASA-CASE-NPO-15786-1] c 76 N84-35112
- THIN PLATES**  
Dichroic plate — as bandpass filters  
[NASA-CASE-NPO-13506-1] c 35 N76-15435
- Adjustable securing base  
[NASA-CASE-MSC-19666-1] c 37 N78-17383
- THIN WALLED SHELLS**  
Thin-walled pressure vessel Patent  
[NASA-CASE-XLE-04677] c 15 N71-10577
- THIN WALLS**  
Channel-type shell construction for rocket engines and the like Patent  
[NASA-CASE-XLE-00144] c 28 N70-34860
- Sealed separable connection Patent  
[NASA-CASE-NPO-10064] c 15 N71-17693
- Low mass truss structure  
[NASA-CASE-LAR-10546-1] c 11 N72-25287
- Differential pressure control  
[NASA-CASE-MFS-14216] c 14 N73-13418
- Method of fabricating an article with cavities — with thin bottom walls  
[NASA-CASE-LAR-10318-1] c 31 N74-18089
- Method of fabricating an object with a thin wall having a precisely shaped slit  
[NASA-CASE-LAR-10409-1] c 31 N74-21059
- THORIUM FLUORIDES**  
Ultraviolet filter  
[NASA-CASE-XNP-02340] c 23 N69-24332
- THORIUM OXIDES**  
Nuclear thermionic converter — tungsten-thorium oxide rods  
[NASA-CASE-NPO-13121-1] c 73 N77-18891
- THREADS**  
Inspection gage for boss Patent  
[NASA-CASE-XMF-04966] c 14 N71-17658
- Threadless fastener apparatus Patent  
[NASA-CASE-XFR-05302] c 15 N71-23254
- THREE DIMENSIONAL MOTION**  
Solid state controller three axes controller  
[NASA-CASE-MSC-12394-1] c 08 N74-10942
- THRESHOLD GATES**  
Method and apparatus for data compression by a decreasing slope threshold test  
[NASA-CASE-NPO-10769] c 08 N72-11171
- Radiation hardening of MOS devices by boron — for stabilizing gate threshold potential  
[NASA-CASE-GSC-11425-2] c 78 N75-25730
- THRESHOLD LOGIC**  
SCR blocking pulse gate amplifier Patent  
[NASA-CASE-XLA-07497] c 09 N71-12514
- THROATS**  
Method of making a rocket nozzle  
[NASA-CASE-XMF-06884-1] c 20 N79-21123
- THRUST AUGMENTATION**  
Nozzle Patent  
[NASA-CASE-XLA-00154] c 28 N70-33374
- Construction and method of arranging a plurality of ion engines to form a cluster Patent  
[NASA-CASE-XNP-02923] c 28 N71-23081
- Reversed cowl flap inlet thrust augmentor — with adjustable airfoil  
[NASA-CASE-ARC-10754-1] c 07 N75-24736
- Method and apparatus for rapid thrust increases in a turbofan engine  
[NASA-CASE-LEW-12971-1] c 07 N80-18039
- Thrust augmented spin recovery device  
[NASA-CASE-LAR-11970-2] c 08 N81-19130
- THRUST BEARINGS**  
Thrust bearing  
[NASA-CASE-LEW-11949-1] c 37 N76-29588
- THRUST CHAMBER PRESSURE**  
Pitch attitude stabilization system utilizing engine pressure ratio feedback signals  
[NASA-CASE-LAR-12562-1] c 08 N81-26152
- THRUST CHAMBERS**  
Rocket chamber leak test fixture  
[NASA-CASE-XFR-09479] c 14 N69-27503
- Supporting and protecting device Patent  
[NASA-CASE-XMF-00580] c 11 N70-35383
- Rocket thrust chamber Patent  
[NASA-CASE-XLE-00145] c 28 N70-36806
- Method of making a rocket motor casing Patent  
[NASA-CASE-XLE-00409] c 28 N71-15658
- Rocket motor casing Patent  
[NASA-CASE-XLE-05689] c 28 N71-15659
- Rocket engine injector Patent  
[NASA-CASE-XLE-03157] c 28 N71-24736
- Injection head for delivering liquid fuel and oxidizers  
[NASA-CASE-NPO-10046] c 28 N72-17843
- Fluidic proportional thruster system  
[NASA-CASE-ARC-10106-1] c 28 N72-22769
- Ion thruster  
[NASA-CASE-LEW-10770-1] c 28 N72-22770
- Thermal flux transfer system  
[NASA-CASE-NPO-12070-1] c 28 N73-32606
- Heat exchanger — rocket combustion chambers and cooling systems  
[NASA-CASE-LEW-12252-1] c 34 N79-13288
- Heat exchanger and method of making — bonding rocket chambers with a porous metal matrix  
[NASA-CASE-LEW-12441-1] c 34 N79-13289
- THRUST CONTROL**  
Electromechanical actuator  
[NASA-CASE-NPO-05975] c 15 N69-23185
- Apparatus and method for control of a solid fueled rocket vehicle Patent  
[NASA-CASE-XNP-00217] c 28 N70-38181
- Thrust and direction control apparatus Patent  
[NASA-CASE-XLE-03583] c 31 N71-17629
- Continuous detonation reaction engine Patent  
[NASA-CASE-XMF-06926] c 28 N71-22983
- High efficiency ionizer assembly Patent  
[NASA-CASE-XNP-01954] c 28 N71-28850
- Heated porous plug microthruster  
[NASA-CASE-GSC-10640-1] c 28 N72-18766
- Multi-purpose wind tunnel reaction control model block  
[NASA-CASE-MSC-19706-1] c 09 N78-31129
- Fluid thrust control system — for liquid propellant rocket engines  
[NASA-CASE-XMF-05964-1] c 20 N79-21124
- THRUST LOADS**  
Thrust measurement  
[NASA-CASE-XMS-05731] c 35 N75-29382
- THRUST MEASUREMENT**  
Thrust dynamometer Patent  
[NASA-CASE-XLE-00702] c 14 N70-40203
- Thrust dynamometer Patent  
[NASA-CASE-XLE-05260] c 14 N71-20429
- Precision thrust gage Patent  
[NASA-CASE-XGS-02319] c 14 N71-22965
- Micro-pound extended range thrust stand Patent  
[NASA-CASE-GSC-10710-1] c 28 N71-27094
- THRUST REVERSAL**  
Thrust reverser for a long duct fan engine — for turbofan engines  
[NASA-CASE-LEW-13199-1] c 07 N82-26293
- THRUST VECTOR CONTROL**  
Thrust vector control apparatus Patent  
[NASA-CASE-XLE-00208] c 28 N70-34294
- Velocity package Patent  
[NASA-CASE-XLA-01339] c 31 N71-15692
- Ion beam deflector Patent  
[NASA-CASE-LEW-10689-1] c 28 N71-26173
- Tertiary flow injection thrust vectoring system Patent  
[NASA-CASE-MFS-20831] c 28 N71-29153
- Flight control system  
[NASA-CASE-MSC-13397-1] c 21 N72-25595
- Rocket thrust throttling system  
[NASA-CASE-LEW-10374-1] c 28 N73-13773
- System for imposing directional stability on a rocket-propelled vehicle  
[NASA-CASE-MFS-21311-1] c 20 N78-21275
- THRUST-WEIGHT RATIO**  
Missile launch release system Patent  
[NASA-CASE-XMF-03198] c 30 N70-40353
- THYRISTORS**  
Electrical power generating system — for windpowered generation  
[NASA-CASE-MFS-24368-3] c 33 N81-22280
- Pulsed thyristor trigger control circuit  
[NASA-CASE-MFS-25616-1] c 33 N84-16455
- Phase detector for three-phase power factor controller  
[NASA-CASE-MFS-25854-1] c 33 N84-27975
- Three-phase power factor controller with induced EMF sensing  
[NASA-CASE-MFS-25852-1] c 33 N84-33661
- TILES**  
Strain arrestor plate for fused silica tile — bonding of thermal insulation to metallic plates or structural parts  
[NASA-CASE-MSC-14182-1] c 27 N76-14264
- Diced tile thermal protection for spacecraft  
[NASA-CASE-MSC-16366-1] c 24 N79-23142
- High temperature emittance coatings and coating compositions — repairing damaged space shuttle tiles in space  
[NASA-CASE-MSC-18851-1] c 27 N82-26460
- Attachment system for silica tiles — thermal protection for space shuttle orbiter  
[NASA-CASE-MSC-18741-1] c 27 N82-29456
- Method for repair of thin glass coatings — on space shuttle orbiter tiles  
[NASA-CASE-KSC-11097-1] c 27 N82-33520
- Densification of porous refractory substrates — space shuttle orbiter tiles  
[NASA-CASE-MSC-18737-1] c 24 N83-13171
- Method of repairing surface damage to porous refractory substrates — space shuttle orbiter tiles  
[NASA-CASE-MSC-18736-1] c 24 N83-13172
- Apparatus for accurately preloading auger attachment means for frangible protective material  
[NASA-CASE-MSC-18791-1] c 37 N83-36482
- Mechanical fastener  
[NASA-CASE-LAR-12738-2] c 18 N84-15180
- Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886
- TILT WING AIRCRAFT**  
Free wing assembly for an aircraft  
[NASA-CASE-FRC-10092-1] c 05 N79-12061
- TIME CONSTANT**  
Variable time constant smoothing circuit Patent  
[NASA-CASE-XGS-01983] c 10 N70-41964
- TIME DEPENDENCE**  
Instrument for determining coincidence and elapse time between independent sources of random sequential events  
[NASA-CASE-LAR-12531-1] c 35 N83-29651
- TIME DISCRIMINATION**  
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent  
[NASA-CASE-XGS-00381] c 09 N70-34819
- TIME DIVISION MULTIPLE ACCESS**  
Method for terminal position determination in Earth terminal-to-satellite burst acquisition and synchronization  
[NASA-CASE-LEW-13893-1] c 32 N83-30832
- TIME DIVISION MULTIPLEXING**  
Time division multiplex system  
[NASA-CASE-XGS-05918] c 07 N69-39974
- Time-division multiplexer Patent  
[NASA-CASE-XNP-00431] c 09 N70-38998
- Data processor having multiple sections activated at different times by selective power coupling to the sections Patent  
[NASA-CASE-XGS-04767] c 08 N71-12494
- Data compression system with a minimum time delay unit Patent  
[NASA-CASE-XNP-08832] c 08 N71-12506
- Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773
- Signal processing apparatus for multiplex transmission Patent  
[NASA-CASE-NPO-10388] c 07 N71-24622
- Programmable telemetry system Patent  
[NASA-CASE-GSC-10131-1] c 07 N71-24624
- High dynamic global positioning system receiver  
[NASA-CASE-NPO-16171-1-CU] c 04 N84-12151
- Chopped molecular beam multiplexing system  
[NASA-CASE-LAR-13174-1] c 72 N84-25431
- TIME FUNCTIONS**  
Single or joint amplitude distribution analyzer Patent  
[NASA-CASE-XNP-01383] c 09 N71-10659
- TIME LAG**  
Closed loop ranging system Patent  
[NASA-CASE-XNP-01501] c 21 N70-41930

## TIME MEASUREMENT

- Data compression system with a minimum time delay unit Patent  
[NASA-CASE-XNP-08832] c 08 N71-12506
- Signal phase estimator  
[NASA-CASE-NPO-11203] c 10 N72-20224
- Automatic transponder — measurement of the internal delay time of a transponder  
[NASA-CASE-GSC-12075-1] c 32 N77-31350
- Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403
- TIME MEASUREMENT**
- Time domain phase measuring apparatus  
[NASA-CASE-GSC-12228-1] c 33 N79-10338
- Synchronization tracking in pulse position modulation receiver  
[NASA-CASE-NPO-16256-1] c 32 N84-32620
- Volumetric fuel quantity gauge  
[NASA-CASE-LAR-13147-1] c 35 N84-32787
- TIME MEASURING INSTRUMENTS**
- Measurement of time differences between luminous events Patent  
[NASA-CASE-XLA-01987] c 23 N71-23976
- Error correction method and apparatus for electronic timepieces  
[NASA-CASE-LAR-12654-1] c 33 N83-36357
- TIME OF FLIGHT SPECTROMETERS**
- Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent  
[NASA-CASE-XNP-01056] c 14 N71-23041
- TIME SERIES ANALYSIS**
- Apparatus for statistical time-series analysis of electrical signals  
[NASA-CASE-MSC-12428-1] c 10 N73-25240
- TIME SHARING**
- Integrated time shared instrumentation display Patent  
[NASA-CASE-XLA-01952] c 08 N71-12507
- TIME SIGNALS**
- System for monitoring signal amplitude ranges  
[NASA-CASE-XMS-04081-1] c 09 N69-39885
- Method of resolving clock synchronization error and means therefor Patent  
[NASA-CASE-XNP-08875] c 10 N71-23089
- Time synchronization system utilizing moon reflected coded signals Patent  
[NASA-CASE-NPO-10143] c 10 N71-26326
- Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137
- System for generating timing and control signals  
[NASA-CASE-NPO-13125-1] c 33 N75-19519
- Precise RF timing signal distribution to remote stations — fiber optics  
[NASA-CASE-NPO-14749-1] c 32 N81-14186
- TIMING DEVICES**
- Synchronous servo loop control system Patent  
[NASA-CASE-XNP-03744] c 10 N71-20448
- Method of resolving clock synchronization error and means therefor Patent  
[NASA-CASE-XNP-08875] c 10 N71-23089
- Resettable monostable pulse generator Patent  
[NASA-CASE-GSC-11139] c 09 N71-27016
- Data transfer system Patent  
[NASA-CASE-NPO-12107] c 08 N71-27255
- High speed photo-optical time recording  
[NASA-CASE-KSC-10294] c 14 N72-18411
- Power control for ac motor  
[NASA-CASE-MFS-25862] c 33 N83-28329
- TIPS**
- Thin wire pointing method  
[NASA-CASE-NPO-15789-1] c 31 N83-19947
- TIRES**
- Excessive temperature warning system Patent  
[NASA-CASE-XLA-01926] c 14 N71-15620
- Resilient wheel Patent  
[NASA-CASE-MFS-13929] c 15 N71-27091
- TISSUES (BIOLOGY)**
- Servo-controlled intravital microscope system  
[NASA-CASE-NPO-13214-1] c 35 N75-25123
- Method and system for in vivo measurement of bone tissue using a two level energy source  
[NASA-CASE-MSC-14276-1] c 52 N77-14737
- System for and method of freezing biological tissue  
[NASA-CASE-GSC-12173-1] c 51 N79-10694
- Coupling apparatus for ultrasonic medical diagnostic system  
[NASA-CASE-NPO-13935-1] c 52 N79-14751
- Apparatus and method of inserting a microelectrode in body tissue or the like using vibration means  
[NASA-CASE-NPO-13910-1] c 52 N79-27836
- Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703
- Enhancement of in vitro guayule propagation  
[NASA-CASE-NPO-15213-1] c 51 N83-17045
- Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053

## TITANATES

- Synthesis of zinc titanate pigment and coatings containing the same  
[NASA-CASE-MFS-13532] c 18 N72-17532

## TITANIUM

- Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443
- Weld-bonded titanium structures  
[NASA-CASE-LAR-11549-1] c 37 N77-11397
- Method of mitigating titanium impurities effects in p-type silicon material for solar cells  
[NASA-CASE-NPO-14635-1] c 44 N80-24741
- High performance filletting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490
- Method and apparatus for coating substrates using a laser  
[NASA-CASE-LEW-13526-1] c 36 N84-22944

## TITANIUM ALLOYS

- Method of inhibiting stress corrosion cracks in titanium alloys Patent  
[NASA-CASE-NPO-10271] c 17 N71-16393
- Nondestructive spot test method for titanium and titanium alloys  
[NASA-CASE-LAR-10539-1] c 17 N73-12547
- Method and apparatus for coating substrates using a laser  
[NASA-CASE-LEW-13526-1] c 36 N84-22944

## TITANIUM NITRIDES

- Improved refractory coatings — sputtered coatings on substrates that form stable nitrides  
[NASA-CASE-LEW-23169-2] c 26 N81-16209

## TITANIUM OXIDES

- Method of preparing zinc orthotitanate pigment  
[NASA-CASE-MFS-23345-1] c 27 N77-30237

## TOLERANCES (MECHANICS)

- Universal restrainer and joint Patent  
[NASA-CASE-XNP-02278] c 15 N71-28951

## TOLUENE

- Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15787-1] c 23 N84-18255

## TOMOGRAPHY

- System for plotting subsoil structure and method therefor  
[NASA-CASE-NPO-14191-1] c 31 N80-32584
- The 3-dimensional and tomographic imaging device for X-ray and gamma-ray emitting objects  
[NASA-CASE-GSC-12851-1] c 35 N83-20083

## TOOLS

- Tool attachment for spreading loose elements away from work Patent  
[NASA-CASE-XMF-02107] c 15 N71-10809
- Adjustable attitude guide device Patent  
[NASA-CASE-XLA-07911] c 15 N71-15571
- Tube dimpling tool Patent  
[NASA-CASE-XMS-06876] c 15 N71-21536
- Stud-bonding gun  
[NASA-CASE-MFS-20299] c 15 N72-11392
- Insert facing tool — manually operated cutting tool for forming studs in honeycomb material  
[NASA-CASE-MFS-21485-1] c 37 N74-25968
- Stator rotor tools  
[NASA-CASE-MSC-16000-1] c 37 N78-24544
- Computer circuit card puller  
[NASA-CASE-FRC-11042-1] c 60 N82-24839
- Open ended tubing cutters  
[NASA-CASE-MSC-18538-1] c 37 N82-26672
- Connection system  
[NASA-CASE-MSC-20319-1] c 37 N82-31689
- Tool for releasing optical elements  
[NASA-CASE-GSC-12794-1] c 37 N83-12434
- Apparatus for accurately preloading auger attachment means for frangible protective material  
[NASA-CASE-MSC-18791-1] c 37 N83-36482
- Tubing and cable cutting tool  
[NASA-CASE-LAR-12786-1] c 37 N84-28085

## TOOTH DISEASES

- Process for the preparation of brushite crystals  
[NASA-CASE-ERC-10338] c 04 N72-33072

## TOPOGRAPHY

- Method for observing the features characterizing the surface of a land mass  
[NASA-CASE-FRC-11013-1] c 43 N81-17499

## TORCHES

- Apparatus for welding torch angle and seam tracking control Patent  
[NASA-CASE-XMF-03287] c 15 N71-15607
- Electric welding torch Patent  
[NASA-CASE-XMF-02330] c 15 N71-23798
- Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421

## TOROIDAL SHELLS

- Toroidal cell and battery — storage battery for high amp-hour load applications  
[NASA-CASE-LEW-12918-1] c 44 N81-24521

## TOROIDS

- Flux sensing device using a tubular core with toroidal gating coil and solenoidal output coil wound thereon Patent  
[NASA-CASE-XGS-01881] c 09 N70-40123
- Shaft transducer having dc output proportional to angular velocity  
[NASA-CASE-NPO-15706-1] c 35 N84-28017

## TORQUE

- Bidirectional step torque filter with zero backlash characteristic Patent  
[NASA-CASE-XGS-04227] c 15 N71-21744
- Isolation coupling arrangement for a torque measuring system  
[NASA-CASE-XLA-04897] c 15 N72-22482
- High-torque open-end wrench  
[NASA-CASE-NPO-13541-1] c 37 N79-14383
- Acoustic driving of rotor  
[NASA-CASE-NPO-14005-1] c 71 N79-20827
- Magnetic field control — electromechanical torquing device  
[NASA-CASE-MFS-23826-1] c 33 N82-26569
- Missile rolling tail brake torque system — simulating bearing friction on canard controlled missiles  
[NASA-CASE-LAR-12751-1] c 15 N84-16231
- Directional gear ratio transmissions  
[NASA-CASE-LAR-12644-1] c 37 N84-28084
- Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-12323-1] c 05 N84-33400

## TORQUE MOTORS

- Low speed phaselock speed control system — for brushless dc motor  
[NASA-CASE-GSC-11127-1] c 09 N75-24758
- Magnetic bearing and motor  
[NASA-CASE-GSC-12726-1] c 37 N83-34323

## TORQUEMETERS

- Optical torquemeter Patent  
[NASA-CASE-XLE-00503] c 14 N70-34818
- Balance torquemeter Patent  
[NASA-CASE-XGS-01013] c 14 N71-23725
- Pressure suit joint analyzer  
[NASA-CASE-ARC-11314-1] c 54 N82-26987

## TORSO

- Restraint torso for a pressurized suit  
[NASA-CASE-MSC-12397-1] c 05 N72-25119
- Spacesuit torso closure  
[NASA-CASE-ARC-11100-1] c 54 N78-31736

## TOUCH

- Mechanically actuated triggered hand  
[NASA-CASE-MFS-20413] c 15 N72-21483
- Method for measuring cutaneous sensory perception  
[NASA-CASE-MSC-13809-1] c 05 N72-25122
- Tactile sensing means for prosthetic limbs  
[NASA-CASE-MFS-16570-1] c 05 N73-32013

## TOUGHNESS

- Toughening reinforced epoxy composites with brominated polymeric additives  
[NASA-CASE-ARC-11427-1] c 24 N83-25791

## TOWERS

- Aerial capsule emergency separation device Patent  
[NASA-CASE-XLA-00115] c 03 N70-33343

## TOXICITY

- Glass compositions with a high modulus of elasticity — nontoxic glass fibers  
[NASA-CASE-HQN-10274-1] c 27 N82-29451

## TOXICITY AND SAFETY HAZARD

- Apparatus for remote handling of materials — mixing or analyzing dangerous chemicals  
[NASA-CASE-LAR-10634-1] c 37 N74-18123

## TOXICOLOGY

- Exposure system for animals Patent  
[NASA-CASE-XAC-05333] c 11 N71-22875

## TRACE CONTAMINANTS

- Microbalance including crystal oscillators for measuring contaminants in a gas system Patent  
[NASA-CASE-NPO-10144] c 14 N71-17701
- Method for removing oxygen impurities from cesium Patent  
[NASA-CASE-XNP-04262-2] c 17 N71-26773
- Electric discharge for treatment of trace contaminants  
[NASA-CASE-ARC-10975-1] c 33 N79-15245

## TRACE ELEMENTS

- Ion microprobe mass spectrometer for analyzing fluid materials Patent  
[NASA-CASE-ERC-10014] c 14 N71-28863
- Automated system for identifying traces of organic chemical compounds in aqueous solutions  
[NASA-CASE-NPO-13063-1] c 25 N78-18245
- Nulling device for detection of trace gases by NDIR absorption  
[NASA-CASE-ARC-10760-1] c 25 N78-22323
- Thermoluminescent aerosol analysis  
[NASA-CASE-LAR-12046-1] c 25 N78-15210

## TRACKING (POSITION)

- Plurality of photosensitive cells on a pyramidal base for planetary trackers  
[NASA-CASE-XNP-04180] c 07 N69-39736
- Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699
- Method and apparatus for aligning a laser beam projector Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125
- Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking  
[NASA-CASE-MFS-23267-1] c 35 N77-20401
- System and method for tracking a signal source — employing feedback control  
[NASA-CASE-HQN-10880-1] c 17 N78-17140
- Sun tracking solar energy collector  
[NASA-CASE-NPO-13921-1] c 44 N79-14526

## TRACKING FILTERS

- Automatic acquisition system for phase-lock loop  
[NASA-CASE-XGS-04994] c 09 N69-21543
- Apparatus and method for stabilized phase detection for binary signal tracking loops  
[NASA-CASE-MSC-16461-1] c 33 N79-11313
- PN lock indicator for dithered PN code tracking loop  
[NASA-CASE-NPO-14435-1] c 33 N81-33405
- Apparatus and method for tracking the fundamental frequency of an analog input signal  
[NASA-CASE-ARC-11367-1] c 33 N83-21238

## TRACKING RADAR

- Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460
- Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680
- Radar antenna system for acquisition and tracking Patent  
[NASA-CASE-XMS-09610] c 07 N71-24625
- Acquisition and tracking system for optical radar  
[NASA-CASE-MFS-20125] c 16 N72-13437
- Synthetic aperture radar target simulator  
[NASA-CASE-NPO-15024-1] c 32 N84-27951

## TRACKING STATIONS

- Optical monitor panel Patent  
[NASA-CASE-XKS-03509] c 14 N71-23175
- Simultaneous acquisition of tracking data from two stations  
[NASA-CASE-NPO-13292-1] c 32 N75-15854

## TRAFFIC CONTROL

- Traffic survey system — using optical scanners  
[NASA-CASE-MFS-22631-1] c 66 N76-19888

## TRAILERS

- Low-drag ground vehicle particularly suited for use in safely transporting livestock  
[NASA-CASE-FRC-11058-1] c 85 N82-33288

## TRAILING EDGES

- Pumped vortex  
[NASA-CASE-LAR-12625-1] c 02 N83-19715
- Rotor blade with passive tuned tab  
[NASA-CASE-ARC-11444-1] c 02 N83-25663

## TRAILING-EDGE FLAPS

- Double hinged flap Patent  
[NASA-CASE-XLA-01290] c 02 N70-42016
- Variable area exhaust nozzle  
[NASA-CASE-LEW-12378-1] c 07 N79-14097

## TRAINING DEVICES

- Visual accommodation trainer-tester  
[NASA-CASE-ARC-11426-1] c 09 N84-12193

## TRAINING SIMULATORS

- Mechanical simulator of low gravity conditions Patent  
[NASA-CASE-MFS-10555] c 11 N71-19494
- Subgravity simulator Patent  
[NASA-CASE-XMS-04798] c 11 N71-21474
- Kinesthetic control simulator — for pilot training  
[NASA-CASE-LAR-10276-1] c 09 N75-15662

## TRAJECTORY ANALYSIS

- Means for visually indicating flight paths of vehicles between the Earth, Venus, and Mercury Patent  
[NASA-CASE-XNP-00708] c 14 N70-35394
- Method of planetary atmospheric investigation using a split-trajectory dual flyby mode Patent  
[NASA-CASE-XAC-08494] c 30 N71-15990

## TRAJECTORY CONTROL

- Trajectory-correction propulsion system Patent  
[NASA-CASE-XNP-01104] c 28 N70-39931
- Technique for control of free-flight rocket vehicles Patent  
[NASA-CASE-XLA-00937] c 31 N71-17691
- Apparatus for automatically stabilizing the attitude of a nonguided vehicle  
[NASA-CASE-ARC-10134] c 30 N72-17873

## TRANSDUCERS

- Pressure variable capacitor  
[NASA-CASE-XNP-09752] c 14 N69-21541
- Bootstrap unloader Patent  
[NASA-CASE-XNP-09768] c 09 N71-12516

## Vibrating structure displacement measuring instrument

- Patent  
[NASA-CASE-XLA-03135] c 32 N71-18428
- Contour surveying system Patent  
[NASA-CASE-XLA-08846] c 14 N71-17586
- Rotary bead dropper and selector for testing micrometeorite detectors Patent  
[NASA-CASE-XGS-03304] c 09 N71-22988
- Self-calibrating displacement transducer Patent  
[NASA-CASE-XLA-00781] c 09 N71-22999
- Extensometer frame  
[NASA-CASE-XLA-10322] c 15 N72-17452
- Split range transducer  
[NASA-CASE-XLA-11189] c 10 N72-20222
- Pulsed excitation voltage circuit for transducers  
[NASA-CASE-FRC-10036] c 09 N72-22200
- Magnifying scratch gage force transducer  
[NASA-CASE-LAR-10496-1] c 14 N72-22437
- Intruder detection system  
[NASA-CASE-ARC-10097-2] c 07 N73-25160
- Acoustical transducer calibrating system and apparatus  
[NASA-CASE-FRC-10060-1] c 14 N73-27379
- Demodulator for carrier transducers  
[NASA-CASE-NUC-10107-1] c 33 N74-17930
- LC-oscillator with automatic stabilized amplitude via bias current control — power supply circuit for transducers  
[NASA-CASE-MFS-21698-1] c 33 N74-26732
- Arterial pulse wave pressure transducer  
[NASA-CASE-GSC-11531-1] c 52 N74-27566
- Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-3] c 33 N75-19520
- Subminiature insertable force transducer — including a strain gage to measure forces in muscles  
[NASA-CASE-NPO-13423-1] c 33 N75-31329
- Self-supporting strain transducer  
[NASA-CASE-LAR-11263-1] c 35 N75-33369
- Miniature muscle displacement transducer  
[NASA-CASE-NPO-13519-1] c 33 N76-19338
- Method and apparatus for nondestructive testing of pressure vessels  
[NASA-CASE-NPO-12142-1] c 38 N76-28563
- Myocardium wall thickness transducer and measuring method  
[NASA-CASE-NPO-13644-1] c 52 N76-29895
- Solar cell angular position transducer  
[NASA-CASE-LAR-11999-1] c 44 N80-18552
- Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072
- Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703
- Heat pipe cooled probe  
[NASA-CASE-LAR-12588-1] c 44 N81-24525
- Photomechanical transducer  
[NASA-CASE-NPO-14363-1] c 39 N81-25400
- Hot foil transducer skin friction sensor  
[NASA-CASE-LAR-12321-1] c 35 N82-24470
- Thin film strain transducer — in-flight monitoring of balloon film strain  
[US-PATENT-APPL-SN-526770] c 35 N84-12448
- Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015
- Strain gage calibration  
[NASA-CASE-LAR-12743-1] c 35 N84-28019

## TRANSFER FUNCTIONS

- Method and apparatus for transfer function simulator for testing complex systems  
[NASA-CASE-NPO-15696-1] c 36 N82-28619

## TRANSFORMERS

- Signal multiplexer  
[NASA-CASE-XGS-01110] c 07 N69-24334
- Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent  
[NASA-CASE-XNP-01193] c 10 N71-16057
- Saturation current protection apparatus for saturable core transformers Patent  
[NASA-CASE-ERC-10075] c 09 N71-24800
- Unsaturating saturable core transformer Patent  
[NASA-CASE-ERC-10125] c 09 N71-24893
- Electronically resettable fuse Patent  
[NASA-CASE-XGS-11177] c 09 N71-27001
- Voltage regulator Patent  
[NASA-CASE-ERC-10113] c 09 N71-27053
- Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948
- Saturation current protection apparatus for saturable core transformers  
[NASA-CASE-ERC-10075-2] c 09 N72-22196
- Falsafe multiple transformer circuit configuration  
[NASA-CASE-NPO-11078] c 09 N72-25262
- Banded transformer cores  
[NASA-CASE-NPO-11966-1] c 33 N74-17928
- Solid-state current transformer  
[NASA-CASE-MFS-22560-1] c 33 N77-14335

## Transformer regulated self-stabilizing chopper

- [NASA-CASE-XGS-09186] c 33 N78-17295
- Apparatus including a plurality of spaced transformers for locating short circuits in cables  
[NASA-CASE-KSC-10899-1] c 33 N79-18193
- Circuit for automatic load sharing in parallel converter modules  
[NASA-CASE-NPO-14056-1] c 33 N79-24257
- System for automatically switching transformer coupled lines  
[NASA-CASE-MSC-16697-1] c 33 N79-28415
- Three phase power factor controller  
[NASA-CASE-MFS-25535-1] c 33 N81-12330
- Base drive for paralleled inverter systems  
[NASA-CASE-NPO-14163-1] c 33 N81-14220
- Low current linearization of magnetic amplifier for dc transducer  
[NASA-CASE-NPO-14617-1] c 33 N81-24338
- Push-pull converter with energy saving circuit for protecting switching transistors from peak power stress  
[NASA-CASE-NPO-14316-1] c 33 N81-33404
- Non-contacting power transfer device  
[NASA-CASE-GSC-12595-1] c 33 N82-24422
- High voltage isolation transformer  
[NASA-CASE-GSC-12817-1] c 33 N83-29590

## TRANSIENT HEATING

- Thermocouple installation  
[NASA-CASE-NPO-13540-1] c 35 N77-14409
- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-1] c 35 N82-25484

## TRANSIENT LOADS

- Deployable solar cell array  
[NASA-CASE-NPO-10883] c 31 N72-22874

## TRANSISTOR AMPLIFIERS

- Apparatus for overcurrent protection of a push-pull amplifier Patent  
[NASA-CASE-MSC-12033-1] c 09 N71-13531

## TRANSISTOR CIRCUITS

- Low power drain semi-conductor circuit  
[NASA-CASE-XGS-04999] c 09 N69-24317
- Ring counter  
[NASA-CASE-XGS-03095] c 09 N69-27463
- Pulse counting circuit which simultaneously indicates the occurrence of the nth pulse Patent  
[NASA-CASE-XMF-00908] c 09 N70-41655
- Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent  
[NASA-CASE-XMS-01315] c 09 N70-41675
- Switching circuit employing regeneratively connected complementary transistors Patent  
[NASA-CASE-XNP-02654] c 10 N70-42032
- High voltage transistor circuit Patent  
[NASA-CASE-XNP-06937] c 09 N71-19516
- Complementary regenerative switch Patent  
[NASA-CASE-XGS-02751] c 09 N71-23015
- Transistor drive regulator Patent  
[NASA-CASE-LEW-10233] c 10 N71-27126
- Multiple slope sweep generator Patent  
[NASA-CASE-XMS-03542] c 09 N71-28926
- Broadband video process with very high input impedance  
[NASA-CASE-NPO-10199] c 09 N72-17156
- Ultra-stable oscillator with complementary transistors  
[NASA-CASE-GSC-11513-1] c 33 N74-20862
- Inrush current limiter  
[NASA-CASE-GSC-11789-1] c 33 N77-14333
- Temperature compensated current source  
[NASA-CASE-MSC-11235] c 33 N78-17294
- Push-pull converter with energy saving circuit for protecting switching transistors from peak power stress  
[NASA-CASE-NPO-14316-1] c 33 N81-33404
- Power converter  
[NASA-CASE-FRC-11014-1] c 33 N82-18494

## TRANSISTORS

- Power supply circuit Patent  
[NASA-CASE-XMS-00913] c 10 N71-23543
- Switching circuit Patent  
[NASA-CASE-XNP-06505] c 10 N71-24799
- Cascaded complementary pair broadband transistor amplifiers Patent  
[NASA-CASE-NPO-10003] c 10 N71-26415
- Fast response low power drain logic circuits  
[NASA-CASE-GSC-10878-1] c 10 N72-22236
- Coaxial inverted geometry transistor having buried emitter  
[NASA-CASE-ARC-10330-1] c 09 N73-32112
- Four phase logic systems — including integrated microcircuits  
[NASA-CASE-MSC-14240-1] c 33 N75-14957
- Complementary DMOS-VMOS integrated circuit structure  
[NASA-CASE-GSC-12190-1] c 33 N79-12321



## TRANSITION FLOW

- Circuit for automatic load sharing in parallel converter modules  
[NASA-CASE-NPO-14056-1] c 33 N79-24257  
Base drive for paralleled inverter systems  
[NASA-CASE-NPO-14163-1] c 33 N81-14220

### TRANSITION FLOW

- Ablation article and method  
[NASA-CASE-LAR-10439-1] c 33 N73-27796

### TRANSITION TEMPERATURE

- Process for preparing thermoplastic aromatic polyimides  
[NASA-CASE-LAR-11828-1] c 27 N78-32261

### TRANSLATIONAL MOTION

- Centrifuge mounted motion simulator Patent  
[NASA-CASE-XAC-00399] c 11 N70-34815  
Translating horizontal tail Patent  
[NASA-CASE-XLA-08801-1] c 02 N71-11043  
Semi-linear ball bearing Patent  
[NASA-CASE-XLA-02809] c 15 N71-22982  
Positioning mechanism  
[NASA-CASE-NPO-10679] c 15 N72-21462

### TRANSLATORS

- Serial data correlator/code translator  
[NASA-CASE-KSC-11025-1] c 32 N83-13323

### TRANSMISSION EFFICIENCY

- Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver  
[NASA-CASE-MFS-21470-1] c 44 N74-19870  
Linear phase demodulator including a phase locked loop with auxiliary feedback loop  
[NASA-CASE-GSC-12018-1] c 33 N77-14334

### TRANSMISSION LINES

- Validation device for spacecraft checkout equipment Patent  
[NASA-CASE-XKS-10543] c 07 N71-26292  
Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27191  
Phase modulator Patent  
[NASA-CASE-MSC-13201-1] c 07 N71-28429  
Shielded flat cable  
[NASA-CASE-MFS-13687-2] c 09 N72-22198  
Phase control circuits using frequency multiplications for phased array antennas  
[NASA-CASE-ERC-10285] c 10 N73-16206  
Phase protection system for ac power lines  
[NASA-CASE-MSC-17832-1] c 33 N74-14956  
System for stabilizing cable phase delay utilizing a coaxial cable under pressure  
[NASA-CASE-NPO-13138-1] c 33 N74-17927  
Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310  
System for automatically switching transformer coupled lines  
[NASA-CASE-MSC-16697-1] c 33 N79-28415

### TRANSMISSIONS (MACHINE ELEMENTS)

- Compensating linkage for main rotor control  
[NASA-CASE-LAR-11797-1] c 05 N81-19087  
Directional gear ratio transmissions  
[NASA-CASE-LAR-12644-1] c 37 N84-28084

### TRANSMISSIVITY

- Process of making medical clip  
[NASA-CASE-LAR-12650-2] c 52 N84-28389

### TRANSMITTER RECEIVERS

- Integrated thermoelectric generator/space antenna combination  
[NASA-CASE-XER-09521] c 09 N72-12136  
Location identification system  
[NASA-CASE-ERC-10324] c 07 N72-25173  
Automatic vehicle location system  
[NASA-CASE-NPO-11850-1] c 32 N74-12912  
Digital communication system  
[NASA-CASE-MSC-13912-1] c 32 N74-30524

### TRANSMITTERS

- Temperature telemetric transmitter Patent  
[NASA-CASE-NPO-10649] c 07 N71-24840  
Two carrier communication system with single transmitter  
[NASA-CASE-NPO-11548] c 07 N73-26118  
Miniature multichannel biotelemetry system  
[NASA-CASE-NPO-13065-1] c 52 N74-26625  
Digital transmitter for data bus communications system  
[NASA-CASE-MSC-14558-1] c 32 N75-21486  
Apparatus for endoscopic examination --- analysis of the propulsion system configuration and transmitter  
[NASA-CASE-NPO-14092-1] c 52 N80-16725  
A single frequency multitransmitter telemetry system  
[NASA-CASE-LAR-13006-1] c 17 N83-20995

### TRANSONIC SPEED

- Leading edge curvature based on convective heating Patent  
[NASA-CASE-XLA-01486] c 01 N71-23497

### TRANSONIC WIND TUNNELS

- Wind tunnel test section  
[NASA-CASE-MFS-20509] c 11 N72-17183

### TRANSPARENCY

- Helmet assembly and latch means therefor Patent  
[NASA-CASE-XMS-04935] c 05 N71-11190  
Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932  
Method of fabricating a photovoltaic module of a substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550  
Light transmitting window assembly  
[NASA-CASE-MSC-18417-1] c 74 N84-23251

### TRANSPARATION

- Rocket chamber and method of making  
[NASA-CASE-LEW-11118-2] c 20 N76-14191

### TRANSPONDERS

- Dynamic Doppler simulator Patent  
[NASA-CASE-XMS-05454-1] c 07 N71-12391  
Method and apparatus for mapping planets  
[NASA-CASE-NPO-11001] c 07 N72-21118  
Code regenerative clean-up loop transponder for a mu-type ranging system  
[NASA-CASE-NPO-11707] c 07 N73-25161  
Automatic vehicle location system  
[NASA-CASE-NPO-11850-1] c 32 N74-12912  
Simultaneous acquisition of tracking data from two stations  
[NASA-CASE-NPO-13292-1] c 32 N75-15854  
Automatic transponder --- measurement of the internal delay time of a transponder  
[NASA-CASE-GSC-12075-1] c 32 N77-31350  
Video processor for air traffic control beacon system  
[NASA-CASE-KSC-11155-1] c 33 N84-15395

### TRANSPORTATION

- Supporting and protecting device Patent  
[NASA-CASE-XMF-00580] c 11 N70-35383

### TRANSVERSE ACCELERATION

- Rim inertial measuring system  
[NASA-CASE-LAR-12052-1] c 18 N81-29152

### TRAPS

- Deep trap, laser activated image converting system  
[NASA-CASE-NPO-13131-1] c 36 N75-19652

### TRAVELING WAVE AMPLIFIERS

- Serrodyne frequency converter re-entrant amplifier system Patent  
[NASA-CASE-XGS-01022] c 07 N71-16088  
Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251  
A linearized traveling wave amplifier with hard limiter characteristics  
[NASA-CASE-LEW-13981-1] c 33 N83-25984  
Resonant isolator for maser amplifier  
[NASA-CASE-NPO-15201-1] c 36 N83-35350  
Ladder supported ring bar circuit  
[NASA-CASE-LEW-13570-1] c 33 N84-16452

### TRAVELING WAVE MASERS

- Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550  
High-gain, broadband traveling wave maser Patent  
[NASA-CASE-NPO-10548] c 16 N71-24831  
Independent gain and bandwidth control of a traveling wave maser  
[NASA-CASE-NPO-13801-1] c 36 N78-18410

### TRAVELING WAVE TUBES

- Segmented superconducting magnet for a broadband traveling wave maser Patent  
[NASA-CASE-XGS-10518] c 16 N71-28554  
Traveling wave tube circuit  
[NASA-CASE-LEW-12013-1] c 33 N79-10339  
Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N80-19425  
Multistage depressed collector for dual mode operation --- for microwave transmitting tubes  
[NASA-CASE-LEW-13282-1] c 33 N82-24415  
A linearized traveling wave amplifier with hard limiter characteristics  
[NASA-CASE-LEW-13981-1] c 33 N83-25984

### TRAVELING WAVES

- Maser for frequencies in the 7-20 GHz range  
[NASA-CASE-NPO-11437] c 16 N72-28521

### TREADMILLS

- Tread drum for animals --- having an electrical shock station  
[NASA-CASE-ARC-10917-1] c 51 N78-27733

### TRIGGER CIRCUITS

- Ring counter  
[NASA-CASE-XGS-03095] c 09 N69-27463  
Electric arc driven wind tunnel Patent  
[NASA-CASE-XMF-00411] c 11 N70-36913  
Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244

## SUBJECT INDEX

- Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent  
[NASA-CASE-ARC-10137-1] c 09 N71-28468  
SCR lamp driver  
[NASA-CASE-GSC-10221-1] c 09 N72-23171  
Rapidly pulsed, high intensity, incoherent light source  
[NASA-CASE-XLE-2529-3] c 33 N74-20859  
Pulsed thyristor trigger control circuit  
[NASA-CASE-MFS-25616-1] c 33 N84-16455

### TRIGONOMETRY

- Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688

### TRIMERS

- Trifunctional alcohol  
[NASA-CASE-NPO-10714] c 06 N69-31244  
Trimerization of aromatic nitriles  
[NASA-CASE-LEW-12053-1] c 27 N78-15276  
Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby  
[NASA-CASE-LEW-12053-2] c 27 N79-28307

### TRIODES

- Triode thermionic energy converter  
[NASA-CASE-XLE-01015] c 03 N69-39898

### TRITIUM

- Method for determining the state of charge of batteries by the use of tracers Patent  
[NASA-CASE-XNP-01464] c 03 N71-10728

### TROPOPAUSE

- CAT altitude avoidance system  
[NASA-CASE-NPO-15351-1] c 06 N83-10040

### TRUCKS

- Fifth wheel  
[NASA-CASE-FRC-10081-1] c 37 N77-14477  
Low-drag ground vehicle particularly suited for use in safely transporting livestock  
[NASA-CASE-FRC-11058-1] c 85 N82-33288

### TRUSSES

- Low mass truss structure  
[NASA-CASE-LAR-10546-1] c 11 N72-25287  
Lightweight structural columns --- space erectable trusses  
[NASA-CASE-LAR-12095-1] c 31 N81-25258  
Structural members, method and apparatus  
[NASA-CASE-MSC-16217-1] c 31 N81-27323  
Sequentially deployable maneuverable tetrahedral beam  
[NASA-CASE-LAR-13098-1] c 31 N83-35178  
Synchronously deployable truss structure  
[NASA-CASE-LAR-13117-1] c 18 N84-16250

### TUBE GRIDS

- Method for fabricating solar cells having integrated collector grids  
[NASA-CASE-LEW-12819-2] c 44 N79-18444

### TUBE HEAT EXCHANGERS

- Electrothermal rockets having improved heat exchangers Patent  
[NASA-CASE-XLE-01783] c 28 N70-34175  
Procedure and apparatus for determination of water in nitrogen tetroxide  
[NASA-CASE-NPO-10234] c 06 N72-17094  
Liquid cooled brassiere and method of diagnosing malignant tumors therewith  
[NASA-CASE-ARC-11007-1] c 52 N77-14736  
Solar energy receiver for a Stirling engine  
[NASA-CASE-NPO-14619-1] c 44 N81-17518

### TUBES

- Method of making tubes Patent  
[NASA-CASE-XGS-04175] c 15 N71-18579  
Tube sealing device Patent  
[NASA-CASE-NPO-10431] c 15 N71-29132

### TUMBLING MOTION

- Tumbler system to provide random motion  
[NASA-CASE-XGS-02437] c 15 N69-21472

### TUMORS

- Liquid cooled brassiere and method of diagnosing malignant tumors therewith  
[NASA-CASE-ARC-11007-1] c 52 N77-14736

### TUNABLE LASERS

- Digital control of diode laser for atmospheric spectroscopy  
[NASA-CASE-NPO-16000-1] c 36 N83-24842  
Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137  
Spectrophone stabilized laser with line center offset frequency control  
[NASA-CASE-NPO-15516-1] c 36 N84-22943

### TUNGSTEN

- Bonding thermoelectric elements to nonmagnetic refractory metal electrodes  
[NASA-CASE-XGS-04554] c 15 N69-39786

- Method of producing porous tungsten ionizers for ion rocket engines Patent  
[NASA-CASE-XLE-00455] c 28 N70-38197
- Small plasma probe Patent  
[NASA-CASE-XLE-02578] c 25 N71-20747
- Fabrication of controlled-porosity metals Patent  
[NASA-CASE-XNP-04339] c 17 N71-29137
- Tungsten contacts on silicon substrates  
[NASA-CASE-GSC-10695-1] c 09 N72-25259
- Nuclear thermionic converter — tungsten-thorium oxide rods  
[NASA-CASE-NPO-13121-1] c 73 N77-18891
- TUNGSTEN ALLOYS**
- Evaporant holder  
[NASA-CASE-XLA-03105] c 15 N69-27483
- Cobalt-base alloy  
[NASA-CASE-LEW-10436-1] c 17 N73-32415
- Directionally solidified eutectic gamma plus beta nickel-base superalloys  
[NASA-CASE-LEW-12906-1] c 26 N77-32279
- TUNING**
- Active tuned circuit  
[NASA-CASE-GSC-11340-1] c 10 N72-33230
- Magnetically actuated tuning method for Gunn oscillators  
[NASA-CASE-NPO-12106] c 09 N73-15235
- Tuned analog network  
[NASA-CASE-GSC-12650-1] c 33 N84-14421
- Maser cavity servo-tuning system  
[NASA-CASE-NPO-15890-1] c 36 N84-15536
- Spectrophone stabilized laser with line center offset frequency control  
[NASA-CASE-NPO-15516-1] c 36 N84-22943
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[NASA-CASE-XGS-04999] c 09 N69-24317
- Inelastic tunnel diodes  
[NASA-CASE-LEW-13833-1] c 33 N83-25983
- TUNNELING (EXCAVATION)**
- Scanning seismic intrusion detection method and apparatus — monitoring unwanted subterranean entry and departure  
[NASA-CASE-ARC-11317-1] c 35 N83-34272
- TUNNELS**
- Deployable flexible tunnel  
[NASA-CASE-MFS-22636-1] c 37 N76-22540
- TURBINE BLADES**
- Transpiration cooled turbine blade manufactured from wires Patent  
[NASA-CASE-XLE-00020] c 15 N70-33226
- Modification and improvements to cooled blades Patent  
[NASA-CASE-XLE-00092] c 15 N70-33264
- High temperature nickel-base alloy Patent  
[NASA-CASE-XLE-00151] c 17 N70-33283
- External liquid-spray cooling of turbine blades Patent  
[NASA-CASE-XLE-00037] c 28 N70-33372
- Liquid spray cooling method Patent  
[NASA-CASE-XLE-00027] c 33 N71-29152
- Welding blades to rotors  
[NASA-CASE-LEW-10533-1] c 15 N73-28515
- Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-19170
- Improved method for driving two-phase turbines with enhanced efficiency  
[NASA-CASE-NPO-15037-1] c 37 N80-26660
- Wingtip vortex turbine  
[NASA-CASE-LAR-12544-1] c 07 N81-27096
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-2] c 37 N82-26674
- Method of protecting a surface with a silicon-slurry/aluminide coating — coatings for gas turbine engine blades and vanes  
[NASA-CASE-LEW-13343-1] c 27 N82-28441
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453
- Vertical shaft windmill  
[NASA-CASE-LAR-12923-1] c 37 N84-12493
- TURBINE ENGINES**
- High speed, self-acting shaft seal — for use in turbine engines  
[NASA-CASE-LEW-11274-1] c 37 N75-21631
- Dual cycle aircraft turbine engine  
[NASA-CASE-LAR-11310-1] c 07 N77-28118
- Composite seal for turbomachinery — backings for turbine engine shrouds  
[NASA-CASE-LEW-12131-1] c 37 N79-18318
- Self stabilizing sonic inlet  
[NASA-CASE-LEW-11890-1] c 05 N79-24976
- Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-2] c 37 N80-26658
- Pumped vortex  
[NASA-CASE-LAR-12625-1] c 02 N83-19715
- TURBINE PUMPS**
- Pulsed energy power system Patent  
[NASA-CASE-MSC-13112] c 03 N71-11057
- Cryogenic cooling system Patent  
[NASA-CASE-NPO-10467] c 23 N71-26654
- Supersonic-combustion rocket  
[NASA-CASE-LEW-11058-1] c 20 N74-13502
- Supercharged topping rocket propellant feed system  
[NASA-CASE-XLE-02062-1] c 20 N80-14188
- TURBINE WHEELS**
- Locking device for turbine rotor blades Patent  
[NASA-CASE-NPO-00816] c 28 N71-28928
- Apparatus for welding blades to rotors  
[NASA-CASE-LEW-10533-2] c 37 N74-11300
- Blade retainer assembly  
[NASA-CASE-LEW-12608-1] c 07 N77-27116
- TURBINES**
- Rotating shaft seal Patent  
[NASA-CASE-XNP-02862-1] c 15 N71-26294
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450
- TURBOCOMPRESSORS**
- Multi-stage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00170] c 15 N70-36412
- Apparatus and method for reducing thermal stress in a turbine rotor  
[NASA-CASE-LEW-12232-1] c 07 N79-10057
- Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577
- Diesel engine catalytic combustor system — aircraft engines  
[NASA-CASE-LEW-12995-1] c 37 N84-33808
- TURBOFAN ENGINES**
- Supersonic fan blading — noise reduction in turbofan engines  
[NASA-CASE-LEW-11402-1] c 07 N74-28226
- Noise suppressor — for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts  
[NASA-CASE-LAR-11141-1] c 07 N74-32418
- Variable thrust nozzle for quiet turbofan engine and method of operating same  
[NASA-CASE-LEW-12317-1] c 07 N78-17055
- Method and apparatus for rapid thrust increases in a turbofan engine  
[NASA-CASE-LEW-12971-1] c 07 N80-18039
- Integrated control system for a gas turbine engine  
[NASA-CASE-LEW-12594-2] c 07 N81-19116
- Thrust reverser for a long duct fan engine — for turbofan engines  
[NASA-CASE-LEW-13199-1] c 07 N82-26293
- Noise suppressor for turbo fan jet engines  
[NASA-CASE-ARC-10812-1] c 07 N83-33884
- TURBOFANS**
- Dual output variable pitch turbofan actuation system  
[NASA-CASE-LEW-12419-1] c 07 N77-14025
- Reverse pitch fan with divided splitter  
[NASA-CASE-LEW-12760-1] c 07 N77-17059
- TURBOGENERATORS**
- Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018
- TURBOJET ENGINE CONTROL**
- Integrated control system for a gas turbine engine  
[NASA-CASE-LEW-12594-2] c 07 N81-19116
- TURBOJET ENGINES**
- Telescoping-spike supersonic inlet for aircraft engines Patent  
[NASA-CASE-XLE-00005] c 28 N70-39899
- Gas turbine combustion apparatus Patent  
[NASA-CASE-XLE-103477-1] c 28 N71-20330
- Reduction of nitric oxide emissions from a combustor  
[NASA-CASE-ARC-10814-2] c 07 N80-26298
- TURBOMACHINE BLADES**
- Platform for a swing root turbomachinery blade  
[NASA-CASE-LEW-12312-1] c 07 N77-32148
- Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-2] c 37 N80-26658
- TURBOMACHINERY**
- Turbo-machine blade vibration damper Patent  
[NASA-CASE-XLE-00155] c 28 N71-29154
- Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-1] c 37 N79-23431
- Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-19540
- Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453
- Damping seal for turbomachinery  
[NASA-CASE-MFS-25842-1] c 37 N83-26080
- Oxidizing seal for a turbine tip gas path  
[NASA-CASE-LEW-14053-1] c 07 N84-22563
- Method of fabricating an abrasible gas path seal  
[NASA-CASE-LEW-13269-2] c 37 N84-22957
- Improved compliant hydrodynamic fluid journal bearing  
[NASA-CASE-LEW-13670-1] c 37 N84-22959
- Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018
- TURBOSHAPTS**
- Optical torquemeter Patent  
[NASA-CASE-XLE-00503] c 14 N70-34818
- High speed, self-acting shaft seal — for use in turbine engines  
[NASA-CASE-LEW-11274-1] c 37 N75-21631
- Improved method for driving two-phase turbines with enhanced efficiency  
[NASA-CASE-NPO-15037-1] c 37 N80-26660
- TURBULENCE METERS**
- Hot foil transducer skin friction sensor  
[NASA-CASE-LAR-12321-1] c 35 N82-24470
- TURBULENT BOUNDARY LAYER**
- Sound shield  
[NASA-CASE-LAR-12883-1] c 71 N83-17235
- TURBULENT FLOW**
- Exhaust flow deflector — for ducted gas flow  
[NASA-CASE-LAR-11570-1] c 34 N76-18364
- System for measuring Reynolds in a turbulently flowing fluid — signal processing  
[NASA-CASE-ARC-10755-2] c 34 N76-27517
- System for measuring three fluctuating velocity components in a turbulently flowing fluid  
[NASA-CASE-ARC-10974-1] c 34 N77-27345
- Detection of the transitional layer between laminar and turbulent flow areas on a wing surface — using an accelerometer to measure pressure levels during wind tunnel tests  
[NASA-CASE-LAR-12261-1] c 02 N80-20224
- Amplified wind turbine apparatus  
[NASA-CASE-MFS-23830-1] c 44 N82-24639
- TURNSTILE ANTENNAS**
- Method and means for damping nutation in a satellite Patent  
[NASA-CASE-XMF-00442] c 31 N71-10747
- Broadband modified turnstile antenna Patent  
[NASA-CASE-MSC-12209] c 09 N71-24842
- Turnstile slot antenna  
[NASA-CASE-GSC-11428-1] c 32 N74-20864
- Turnstile and flared cone UHF antenna  
[NASA-CASE-LAR-10970-1] c 33 N76-14372
- TURRET**
- Electron beam tube containing a multiple cathode array employing indexing means for cathode substitution Patent  
[NASA-CASE-NPO-10625] c 09 N71-26182
- TWISTING**
- Means for controlling aerodynamically induced twist  
[NASA-CASE-LAR-12175-1] c 05 N82-28279
- TWO BODY PROBLEM**
- Instrument for measuring potentials on two dimensional electric field plots Patent  
[NASA-CASE-XLA-08493] c 10 N71-19421
- TWO DIMENSIONAL BODIES**
- Two-dimensional radiant energy array computers and computing devices  
[NASA-CASE-GSC-11839-1] c 60 N77-14751
- TWO PHASE FLOW**
- Two-step rocket engine bipropellant valve Patent  
[NASA-CASE-XMS-04890-1] c 15 N70-22192
- Booster tank system Patent  
[NASA-CASE-MSC-12390] c 27 N71-29155
- Two phase flow system with discrete impinging two-phase jets  
[NASA-CASE-NPO-11556] c 12 N72-25292
- Method and turbine for extracting kinetic energy from a stream of two-phase fluid  
[NASA-CASE-NPO-14130-1] c 34 N79-20335
- Improved method for driving two-phase turbines with enhanced efficiency  
[NASA-CASE-NPO-15037-1] c 37 N80-26660
- TWO STAGE TURBINES**
- Improved method for driving two-phase turbines with enhanced efficiency  
[NASA-CASE-NPO-15037-1] c 37 N80-26660
- TYPEWRITERS**
- Guide for a typewriter  
[NASA-CASE-MFS-15218-1] c 37 N77-19457

## U

## U BENDS

- Technique of elbow bending small jacketed transfer lines Patent  
[NASA-CASE-XNP-10475] c 15 N71-24679
- Method for distillation of liquids  
[NASA-CASE-XNP-08124-2] c 06 N73-13129

## ULCERS

- Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-2] c 52 N81-14613

Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-1] c 52 N81-29764

**ULLAGE**  
Penetrating radiation system for detecting the amount of liquid in a tank Patent  
[NASA-CASE-MSC-12280] c 27 N71-16348

**ULTRAHIGH FREQUENCIES**  
Turnstile and flared cone UHF antenna  
[NASA-CASE-LAR-10970-1] c 33 N76-14372  
Dual band combiner for horn antenna  
[NASA-CASE-NPO-14519-1] c 32 N80-23524

**ULTRAHIGH VACUUM**  
Method of lubricating rolling element bearings Patent  
[NASA-CASE-XLE-09527] c 15 N71-17688  
Gauge calibration by diffusion  
[NASA-CASE-XGS-07752] c 14 N73-30390  
Ultrahigh vacuum gauge having two collector electrodes  
[NASA-CASE-LAR-02743] c 14 N73-32324  
In situ transfer standard for ultrahigh vacuum gage calibration  
[NASA-CASE-LAR-10862-1] c 35 N74-15092  
Precision manipulator heating and cooling apparatus for use in UHV systems with sample transfer capability  
[NASA-CASE-LAR-13040-1] c 35 N84-29191

**ULTRAPURE METALS**  
Production of ultrapure amorphous metals utilizing acoustic cooling  
[NASA-CASE-NPO-15658-1] c 26 N83-19890

**ULTRASONIC AGITATION**  
Apparatus for recovering matter adhered to a host surface  
[NASA-CASE-NPO-11213] c 15 N73-20514

**ULTRASONIC CLEANING**  
Acoustic tooth cleaner  
[NASA-CASE-LAR-12471-1] c 52 N82-29862

**ULTRASONIC FLAW DETECTION**  
Length mode piezoelectric ultrasonic transducer for inspection of solid objects  
[NASA-CASE-MSC-19672-1] c 38 N79-14398  
Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274  
Two-dimensional scanner apparatus --- flaw detector in small flat plates  
[NASA-CASE-MFS-25687-1] c 35 N84-22928

**ULTRASONIC RADIATION**  
Ultrasonic biomedical measuring and recording apparatus --- for recording motion of internal organs such as heart valves  
[NASA-CASE-ARC-10597-1] c 52 N74-20726  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-1] c 52 N76-33835  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-2] c 52 N79-26771  
Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053

**ULTRASONIC TESTS**  
Ultrasonic scanner for radial and flat panels  
[NASA-CASE-MFS-20335-1] c 35 N74-10415  
Ultrasonic scanning system for in-place inspection of brazed tube joints  
[NASA-CASE-MFS-20767-1] c 38 N74-15130  
Method and apparatus for nondestructive testing --- using high frequency arc discharges  
[NASA-CASE-MFS-21233-1] c 38 N74-15395  
CW ultrasonic bolt tensioning monitor  
[NASA-CASE-LAR-12016-1] c 39 N78-15512

**ULTRASONIC WAVE TRANSDUCERS**  
Apparatus for recovering matter adhered to a host surface  
[NASA-CASE-NPO-11213] c 15 N73-20514  
Ultrasonic bone densitometer  
[NASA-CASE-MFS-20994-1] c 35 N75-12271  
Reference apparatus for medical ultrasonic transducer  
[NASA-CASE-ARC-10753-1] c 54 N75-27760  
Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity  
[NASA-CASE-LAR-11435-1] c 35 N76-15432  
Coupling apparatus for ultrasonic medical diagnostic system  
[NASA-CASE-NPO-13935-1] c 52 N79-14751  
CDS solid state phase insensitive ultrasonic transducer --- annealing cadmium sulfide crystals  
[NASA-CASE-LAR-12304-1] c 35 N80-20559  
Liquid-immersible electrostatic ultrasonic transducer  
[NASA-CASE-LAR-12465-1] c 33 N82-26572  
Ultrasonic transducer with Gaussian radial pressure distribution  
[NASA-CASE-LAR-12967-1] c 35 N84-22932  
Apparatus for disintegrating kidney stones  
[NASA-CASE-GSC-12652-1] c 52 N84-34913

**ULTRASONIC WELDING**  
Ultrasonically bonded valve assembly  
[NASA-CASE-NPO-13360-1] c 37 N75-25185

**ULTRASONICS**

Methods and apparatus employing vibratory energy for wrenching Patent  
[NASA-CASE-MFS-20586] c 15 N71-17686  
Pseudo continuous wave instrument --- ultrasonics  
[NASA-CASE-LAR-12260-1] c 35 N79-10390

**ULTRAVIOLET FILTERS**  
Ultraviolet filter  
[NASA-CASE-XNP-02340] c 23 N69-24332  
Ultraviolet resonance lamp Patent  
[NASA-CASE-ARC-10030] c 09 N71-12521

**ULTRAVIOLET LASERS**  
Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6  
[NASA-CASE-NPO-13993-1] c 72 N79-13826

**ULTRAVIOLET RADIATION**  
Alkali-metal silicate protective coating  
[NASA-CASE-XGS-04119] c 18 N69-39979  
Ultraviolet resonance lamp Patent  
[NASA-CASE-ARC-10030] c 09 N71-12521  
Leak detector wherein a probe is monitored with ultraviolet radiation Patent  
[NASA-CASE-ERC-10034] c 15 N71-24896  
Phototropic composition of matter  
[NASA-CASE-XGS-03736] c 14 N72-22443  
Transmitting and reflecting diffuser --- for ultraviolet light  
[NASA-CASE-LAR-10385-2] c 70 N74-13436  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21156  
Light shield and cooling apparatus --- high intensity ultraviolet lamp  
[NASA-CASE-LAR-10089-1] c 34 N74-23066  
Flame detector operable in presence of proton radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410  
Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback  
[NASA-CASE-NPO-13346-1] c 36 N76-29575  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N74-23215  
Violet process for producing flame resistant polyamides and products produced thereby --- protective clothing for high oxygen environments  
[NASA-CASE-MSC-16074-1] c 27 N80-26446

**ULTRAVIOLET REFLECTION**  
Alkali metal silicate protective coating Patent  
[NASA-CASE-XGS-04799] c 18 N71-24183  
Ultraviolet light reflective coating  
[NASA-CASE-GSC-11786-1] c 24 N76-24363  
Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings  
[NASA-CASE-LAR-10385-3] c 74 N78-15879

**ULTRAVIOLET SPECTRA**  
Ultraviolet atomic emission detector  
[NASA-CASE-HQN-10756-1] c 14 N72-25428

**ULTRAVIOLET SPECTROMETERS**  
Concave grating spectrometer Patent  
[NASA-CASE-XGS-01036] c 14 N70-40003  
Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699

**UMBILICAL CONNECTORS**  
Umbilical separator for rockets Patent  
[NASA-CASE-XNP-00425] c 11 N70-38202  
Umbilical disconnect Patent  
[NASA-CASE-XLA-00711] c 03 N71-12258  
Remote controlled tubular disconnect Patent  
[NASA-CASE-XLA-01396] c 03 N71-12259  
Serpentuator Patent  
[NASA-CASE-XMF-05344] c 31 N71-16345  
Breakaway connector  
[NASA-CASE-NPO-11140] c 15 N72-17455  
Quick disconnect coupling  
[NASA-CASE-NPO-11202] c 15 N72-25450  
Deployable flexible tunnel  
[NASA-CASE-MFS-22636-1] c 37 N76-22540  
High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272

**UMBILICAL TOWERS**  
Emergency escape system Patent  
[NASA-CASE-XKS-02342] c 05 N71-11199

**UNDERWATER ENGINEERING**  
Ejectable underwater sound source recovery assembly  
[NASA-CASE-LAR-10595-1] c 35 N74-16135  
Underwater seismic source --- for petroleum exploration  
[NASA-CASE-NPO-14255-1] c 46 N79-23555

**UNDERWATER TESTS**  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332] c 05 N72-20097  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332-2] c 05 N73-25125

**UNIFORM FLOW**  
Wind tunnel flow generation section  
[NASA-CASE-ARC-10710-1] c 09 N75-12969

**UNIONS (CONNECTORS)**

Beam connector apparatus and assembly  
[NASA-CASE-MFS-25134-1] c 31 N83-31895

**UNLOADING**  
Bootstrap unloader Patent  
[NASA-CASE-XNP-09768] c 09 N71-12516

**UNMANNED SPACECRAFT**  
Material handling device Patent  
[NASA-CASE-XNP-09770-3] c 11 N71-27036

**UP-CONVERTERS**  
Method and apparatus for quadruphase-shift-key and linear phase modulation  
[NASA-CASE-NPO-14444-1] c 33 N81-15192

**UPPER ATMOSPHERE**  
Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699  
Apparatus for sampling particulates in gases  
[NASA-CASE-HQN-10037-1] c 14 N73-27376  
Rocket having barium release system to create ion clouds in the upper atmosphere  
[NASA-CASE-LAR-10670-2] c 15 N74-27360  
Microwave limb sounder --- measuring trace gases in the upper atmosphere  
[NASA-CASE-NPO-14544-1] c 46 N82-12685

**URANIUM 235**  
Isotope separation using metallic vapor lasers  
[NASA-CASE-NPO-13550-1] c 36 N77-26477

**UREAS**  
Aldehyde-containing urea-absorbing polysaccharides  
[NASA-CASE-NPO-13620-1] c 27 N77-30236  
Dialysis system --- using ion exchange resin membranes permeable to urea molecules  
[NASA-CASE-NPO-14101-1] c 52 N80-14687  
Reverse osmosis membrane of high urea rejection properties --- water purification  
[NASA-CASE-ARC-10980-1] c 27 N80-23452

**URETHANES**  
Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104

**URINALYSIS**  
Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754  
Method of detecting and counting bacteria in body fluids  
[NASA-CASE-GSC-11092-2] c 04 N73-27052  
Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions  
[NASA-CASE-GSC-11169-2] c 05 N73-32011  
Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N79-14750

**URINATION**  
Open type urine receptacle  
[NASA-CASE-MSC-12324-1] c 05 N72-22093  
Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N81-24711  
Urine collection apparatus --- feminine hygiene  
[NASA-CASE-MSC-18381-1] c 52 N81-28740

**URINE**  
Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N78-27750

**UROLOGY**  
Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N81-24711

**UTERUS**  
Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875

**V****V GROOVES**

Vee-notching device --- with adjustable carriage  
[NASA-CASE-MFS-20730-1] c 39 N74-13131  
Complementary DMOS-VMOS integrated circuit structure  
[NASA-CASE-GSC-12190-1] c 33 N79-12321  
High voltage v-groove solar cell  
[NASA-CASE-LEW-13401-2] c 44 N83-32177

**VACANCIES (CRYSTAL DEFECTS)**  
Bimetallic junctions  
[NASA-CASE-LEW-11573-1] c 26 N77-28265

**VACUUM**  
Depositing semiconductor films utilizing a thermal gradient  
[NASA-CASE-XKS-04614] c 15 N69-21460  
Superconducting magnet Patent  
[NASA-CASE-XNP-06503] c 23 N71-29049  
Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12174-2] c 35 N79-14346  
Bakeable McLeod gauge  
[NASA-CASE-XGS-01293-1] c 35 N79-33450

## VACUUM APPARATUS

- Null-type vacuum microbalance Patent  
[NASA-CASE-XAC-00472] c 15 N70-40180
- Evacuation port seal Patent  
[NASA-CASE-XMF-03290] c 15 N71-23256
- Apparatus for testing polymeric materials Patent  
[NASA-CASE-XNP-09699] c 06 N71-24607
- Trap for preventing diffusion pump backstreaming  
[NASA-CASE-GSC-10518-1] c 15 N72-22489
- Inductance device with vacuum insulation  
[NASA-CASE-LEW-10330-1] c 09 N72-27226
- Apparatus for producing metal powders  
[NASA-CASE-XLE-06461-2] c 17 N72-28535
- Vacuum probe surface sampler  
[NASA-CASE-LAR-10623-1] c 14 N73-30395
- Vacuum leak detector  
[NASA-CASE-LAR-11237-1] c 35 N75-19612
- Apparatus for positioning modular components on a vertical or overhead surface  
[NASA-CASE-LAR-11465-1] c 37 N76-21554
- Safety shield for vacuum/pressure chamber viewing port  
[NASA-CASE-GSC-12513-1] c 31 N81-19343
- Head for high speed spinner having a vacuum chuck --- holding silicon dioxide chips for etching  
[NASA-CASE-NPO-15227-1] c 37 N81-33482
- Static continuous electrophoresis device  
[NASA-CASE-MFS-25306-1] c 25 N83-13187
- Method and apparatus for supercooling and solidifying substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650
- Optical multiple sample vacuum integrating sphere  
[NASA-CASE-GSC-12849-1] c 74 N84-15960

## VACUUM CHAMBERS

- High-vacuum condenser tank for ion rocket tests Patent  
[NASA-CASE-XLE-00168] c 11 N70-33278
- Split welding chamber Patent  
[NASA-CASE-LEW-11531] c 15 N71-14932
- Space environmental work simulator Patent  
[NASA-CASE-XMF-07488] c 11 N71-18773
- Pressure monitoring with a plurality of ionization gauges controlled at a central location Patent  
[NASA-CASE-XLE-00787] c 14 N71-21090
- Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent  
[NASA-CASE-XER-11203] c 14 N71-28994
- Cryogenic feedthrough  
[NASA-CASE-LAR-10031] c 15 N72-22484
- Altitude simulation chamber for rocket engine testing  
[NASA-CASE-MFS-20620] c 11 N72-27262
- Evacuation valve  
[NASA-CASE-LAR-10061-1] c 15 N72-31483
- Method and apparatus for determining the contents of contained gas samples  
[NASA-CASE-GSC-10903-1] c 14 N73-12444
- Test stand system for vacuum chambers  
[NASA-CASE-MFS-21362] c 11 N73-20267
- Atomic hydrogen storage --- cryotrapping and magnetic field strength  
[NASA-CASE-LEW-12081-2] c 28 N80-20402
- Containerless high temperature calorimeter apparatus  
[NASA-CASE-MFS-23923-1] c 35 N81-19426
- Hermetic seal for a shaft  
[NASA-CASE-NPO-15115-1] c 37 N82-24493
- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-15670-1] c 33 N82-33634
- Sphere forming method and apparatus  
[NASA-CASE-NPO-15070-1] c 31 N83-35176
- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884

## VACUUM DEPOSITION

- A method for the deposition of beta-silicon carbide by isoeptaxy  
[NASA-CASE-ERC-10120] c 26 N69-33482
- Vacuum deposition apparatus Patent  
[NASA-CASE-XMF-01667] c 15 N71-17647
- Evaporant source for vapor deposition Patent  
[NASA-CASE-XMF-06065] c 15 N71-20395
- Vacuum evaporator with electromagnetic ion steering Patent  
[NASA-CASE-NPO-10331] c 09 N71-26701
- Preparation of dielectric coating of variable dielectric constant by plasma polymerization  
[NASA-CASE-ARC-10892-2] c 27 N79-14214
- Refractory coatings and method of producing the same  
[NASA-CASE-LEW-13169-1] c 28 N82-29415
- Diamondlike flakes  
[NASA-CASE-LEW-13837-2] c 24 N84-22696

## VACUUM EFFECTS

- High power RF coaxial switch  
[NASA-CASE-NPO-14229-1] c 33 N80-18285

## VACUUM FURNACES

- Apparatus for inserting and removing specimens from high temperature vacuum furnaces  
[NASA-CASE-LAR-10841-1] c 31 N74-27900

## VACUUM GAGES

- Thermopile vacuum gage tube simulator Patent  
[NASA-CASE-XLA-02758] c 14 N71-18481
- Gauge calibration by diffusion  
[NASA-CASE-XGS-07752] c 14 N73-30390
- Ultrahigh vacuum measuring ionization gauge  
[NASA-CASE-XLA-05087] c 14 N73-30391
- In situ transfer standard for ultrahigh vacuum gage calibration  
[NASA-CASE-LAR-10862-1] c 35 N74-15092

## VACUUM MELTING

- High temperature furnace for melting materials in space  
[NASA-CASE-MFS-20710] c 11 N72-23215
- High temperature acoustic levitator  
[NASA-CASE-NPO-16022-1] c 71 N83-36847

## VACUUM PUMPS

- Pressure control valve --- inflating flexible bladders  
[NASA-CASE-ARC-11251-1] c 37 N81-17433

## VACUUM SYSTEMS

- Shrink-fit gas valve Patent  
[NASA-CASE-XGS-00587] c 15 N70-35087
- Cryogenic connector for vacuum use Patent  
[NASA-CASE-XGS-02441] c 15 N70-41629
- Ionization vacuum gauge with all but the end of the ion collector shielded Patent  
[NASA-CASE-XLA-07424] c 14 N71-18482
- Sorption vacuum trap Patent  
[NASA-CASE-XER-09519] c 14 N71-18483
- Vacuum leak detector  
[NASA-CASE-LAR-11237-1] c 35 N75-19612
- Ampoule sealing apparatus and process --- for housing a semiconductor growth charge under vacuum  
[NASA-CASE-LAR-12847-1] c 33 N83-16633

## VACUUM TUBES

- Integrated structure vacuum tube  
[NASA-CASE-ARC-10445-1] c 31 N78-31365
- Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229

## VALUE

- High impact pressure regulator Patent  
[NASA-CASE-NPO-10175] c 14 N71-18625

## VALVES

- Valve actuator Patent  
[NASA-CASE-XHQ-01208] c 15 N70-35409
- Fluid coupling Patent  
[NASA-CASE-XLE-00397] c 15 N70-36492
- High pressure four-way valve Patent  
[NASA-CASE-XNP-00214] c 15 N70-36908
- Reinforcing means for diaphragms Patent  
[NASA-CASE-XNP-01962] c 32 N70-41370
- Multiway vortex valve system Patent  
[NASA-CASE-XMF-04709] c 15 N71-15609
- Multiple orifice throttle valve Patent  
[NASA-CASE-XNP-09698] c 15 N71-18580
- High pressure air valve Patent  
[NASA-CASE-MSC-11010] c 15 N71-19485
- Valve seat with resilient support member Patent  
[NASA-CASE-XKS-02582] c 15 N71-21234
- Positive locking check valve Patent  
[NASA-CASE-XMS-09310] c 15 N71-22706
- Dual latching solenoid valve Patent  
[NASA-CASE-XMS-05890] c 09 N71-23191
- Valve seat  
[NASA-CASE-NPO-10606] c 15 N72-25451
- Evacuation valve  
[NASA-CASE-LAR-10061-1] c 15 N72-31483
- Flow control valve --- for high temperature fluids  
[NASA-CASE-NPO-11951-1] c 37 N74-21065
- Airlock  
[NASA-CASE-MFS-20922-1] c 18 N74-22136
- Reciprocating engines  
[NASA-CASE-MSC-16239-1] c 37 N81-32510
- Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744
- Linear motion valve  
[NASA-CASE-MSC-20148-1] c 37 N84-32823

## VANES

- Solar vane actuator Patent  
[NASA-CASE-XNP-05535] c 14 N71-23040
- Rotary vane attenuator wherein rotor has orthogonally disposed resistive and dielectric cards  
[NASA-CASE-NPO-11418-1] c 14 N73-13420
- Amplified wind turbine apparatus  
[NASA-CASE-MFS-23830-1] c 44 N82-24639
- Method of protecting a surface with a silicon-slurry/aluminate coating --- coatings for gas turbine engine blades and vanes  
[NASA-CASE-LEW-13343-1] c 27 N82-28441

## VAPOR DEPOSITION

- A method for the deposition of beta-silicon carbide by isoeptaxy  
[NASA-CASE-ERC-10120] c 26 N69-33482
- Apparatus for producing high purity silicon carbide crystals Patent  
[NASA-CASE-XLA-02057] c 26 N70-40015
- Method of changing the conductivity of vapor deposited gallium arsenide by the introduction of water into the vapor deposition atmosphere Patent  
[NASA-CASE-XNP-01961] c 26 N71-29156
- Tungsten contacts on silicon substrates  
[NASA-CASE-GSC-10695-1] c 09 N72-25259
- Deposition apparatus  
[NASA-CASE-LAR-10541-1] c 15 N72-32487
- Deposition of alloy films --- on irregularly shaped metal object  
[NASA-CASE-LEW-11262-1] c 27 N74-13270
- System for depositing thin films  
[NASA-CASE-MFS-20775-1] c 31 N75-12161
- Vapor deposition apparatus --- semiconductors and gallium arsenides  
[NASA-CASE-HQN-10462] c 25 N75-29192
- Chemical vapor deposition reactor --- providing uniform film thickness  
[NASA-CASE-NPO-13650-1] c 25 N79-28253

## VAPOR PHASES

- Fluid dispensing apparatus and method Patent  
[NASA-CASE-XLE-01182] c 27 N71-15635
- Simple method of making photovoltaic junctions Patent  
[NASA-CASE-XNP-01960] c 09 N71-23027
- Fluid phase analyzer Patent  
[NASA-CASE-NPO-10691] c 14 N71-26199
- Propellant mass distribution metering apparatus Patent  
[NASA-CASE-NPO-10185] c 10 N71-26339
- VAPOR PRESSURE
- Venting vapor apparatus Patent  
[NASA-CASE-XLE-00288] c 15 N70-34247
- Vapor liquid separator Patent  
[NASA-CASE-XMF-04042] c 15 N71-23023
- Method and apparatus for convection control of metallic halide vapor density in a metallic halide laser  
[NASA-CASE-NPO-15021-1] c 36 N83-10417

## VAPOR TRAPS

- Sorption vacuum trap Patent  
[NASA-CASE-XER-09519] c 14 N71-18483

## VAPORIZERS

- Boiler for generating high quality vapor Patent  
[NASA-CASE-XLE-00785] c 33 N71-16104
- Particle analyzing method and apparatus  
[NASA-CASE-NPO-15292-1] c 35 N83-27184

## VAPORIZING

- Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372
- Method for controlling vapor content of a gas  
[NASA-CASE-NPO-10633] c 03 N72-28025

## VAPORS

- Propulsion apparatus and method using boil-off gas from a cryogenic liquid --- controlling spacecraft attitude and drag  
[NASA-CASE-MFS-25946-1] c 20 N84-15183

## VARACTOR DIODE CIRCUITS

- Phase modulator Patent  
[NASA-CASE-MSC-13201-1] c 07 N71-28429

## VARACTOR DIODES

- Varactor high level mixer  
[NASA-CASE-XGS-02171] c 09 N69-24324
- Multiple varactor frequency doubler Patent  
[NASA-CASE-XMF-04958-1] c 10 N71-26414
- Millimeter wave pumped parametric amplifier  
[NASA-CASE-GSC-11617-1] c 33 N74-32660

## VARIABLE

- Variable speed drive  
[NASA-CASE-GSC-12643-1] c 37 N83-26078
- Slotted variable camber flap  
[NASA-CASE-LAR-12541-1] c 05 N84-22551

## VARIABLE CYCLE ENGINES

- Dual cycle aircraft turbine engine  
[NASA-CASE-LAR-11310-1] c 07 N77-28118
- Variable cycle gas turbine engines  
[NASA-CASE-LEW-12916-1] c 37 N78-17384
- Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067

## VARIABLE GEOMETRY STRUCTURES

- Landing arrangement for aerial vehicles Patent  
[NASA-CASE-XLA-00142] c 02 N70-33286
- Variable geometry wind tunnels  
[NASA-CASE-XLA-07430] c 11 N72-22246

## VARIABLE PITCH PROPELLERS

- Aircraft engine nozzle  
[NASA-CASE-ARC-10977-1] c 07 N80-32392
- Dual output variable pitch turbofan actuation system  
[NASA-CASE-LEW-12419-1] c 07 N77-14025

- Impact absorbing blade mounts for variable pitch blades  
[NASA-CASE-LEW-12313-1] c 37 N78-10468
- VARIABLE SWEEP WINGS**  
Variable sweep wing configuration Patent  
[NASA-CASE-XLA-00230] c 02 N70-33255  
Variable sweep wing aircraft Patent  
[NASA-CASE-XLA-00221] c 02 N70-33266  
Variable-span aircraft Patent  
[NASA-CASE-XLA-00166] c 02 N70-34178  
Variable sweep aircraft wing Patent  
[NASA-CASE-XLA-00350] c 02 N70-38011  
Variable sweep aircraft Patent  
[NASA-CASE-XLA-03659] c 02 N71-11041  
Dual-fuselage aircraft having yawable wing and horizontal stabilizer  
[NASA-CASE-ARC-10470-1] c 02 N73-26005
- VARIABLE THRUST**  
Variable thrust ion engine utilizing thermally decomposable solid fuel Patent  
[NASA-CASE-XMF-00923] c 28 N70-36802  
Method for continuous variation of propellant flow and thrust in propulsive devices Patent  
[NASA-CASE-XLE-00177] c 28 N70-40367  
Variable thrust nozzle for quiet turbofan engine and method of operating same  
[NASA-CASE-LEW-12317-1] c 07 N78-17055
- VARIATIONS**  
Bidirectional step torque filter with zero backlash characteristic Patent  
[NASA-CASE-XGS-04227] c 15 N71-21744
- VECTOR ANALYSIS**  
Two force component measuring device Patent  
[NASA-CASE-XAC-04888-1] c 14 N71-20439
- VECTOCARDIOGRAPHY**  
Biomedical electrode arrangement Patent  
[NASA-CASE-XFR-10856] c 05 N71-11189
- VEGETATION GROWTH**  
Rotary plant growth accelerating apparatus — weightlessness  
[NASA-CASE-ARC-10722-1] c 51 N75-25503  
Remote sensing of vegetation and soil using microwave ellipsometry  
[NASA-CASE-GSC-11976-1] c 43 N78-10529  
Enhancement of in vitro guayule propagation  
[NASA-CASE-NPO-15213-1] c 51 N83-17045
- VEHICLE WHEELS**  
Deformable vehicle wheel. Patent  
[NASA-CASE-MFS-20400] c 31 N71-18611  
Resilient wheel Patent  
[NASA-CASE-MFS-13929] c 15 N71-27091  
Omnidirectional wheel  
[NASA-CASE-MFS-21309-1] c 37 N74-18125  
Two speed drive system — mechanical device for changing speed on rotating vehicle wheel  
[NASA-CASE-MFS-20645-1] c 37 N74-23070  
Fifth wheel  
[NASA-CASE-FRC-10081-1] c 37 N77-14477  
Improved tire/wheel concept — pneumatic aircraft tire  
[NASA-CASE-LAR-11695-2] c 37 N80-18402  
Tire/wheel concept  
[NASA-CASE-LAR-11695-2] c 37 N81-24443  
Suspension system for a wheel rolling on a flat track — bearings for directional antennas  
[NASA-CASE-NPO-14395-1] c 37 N82-21587
- VEHICLES**  
Magnetic suspension and pointing system  
[NASA-CASE-LAR-11889-2] c 37 N78-27424
- VEHICULAR TRACKS**  
Suspension system for a wheel rolling on a flat track — bearings for directional antennas  
[NASA-CASE-NPO-14395-1] c 37 N82-21587
- VELOCITY**  
Velocity limiting safety system Patent  
[NASA-CASE-XLA-07473] c 15 N71-24895
- VELOCITY COUPLING**  
Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N82-26568
- VELOCITY MEASUREMENT**  
Micrometeroid velocity measuring device Patent  
[NASA-CASE-XLA-00495] c 14 N70-41332  
Superconductive accelerometer Patent  
[NASA-CASE-XMF-01099] c 14 N71-15969  
Gravimeter Patent  
[NASA-CASE-XMF-05844] c 14 N71-17587  
Laser Doppler system for measuring three dimensional vector velocity Patent  
[NASA-CASE-MFS-20386] c 21 N71-19212  
Particle detection apparatus including a ballistic pendulum Patent  
[NASA-CASE-XMS-04201] c 14 N71-22990  
Angular velocity and acceleration measuring apparatus  
[NASA-CASE-ERC-10292] c 14 N72-25410  
Flow velocity and directional instrument  
[NASA-CASE-LAR-10855-1] c 14 N73-13415
- Doppler shift system — system for measuring velocities of radiating particles  
[NASA-CASE-HQN-10740-1] c 72 N74-19310
- Tachometer  
[NASA-CASE-MFS-23175-1] c 35 N77-30436
- Velocity measurement system  
[NASA-CASE-MFS-23363-1] c 35 N78-32396
- Fluid velocity measuring device  
[NASA-CASE-LAR-11729-1] c 34 N79-12359
- Air speed and attitude probe  
[NASA-CASE-FRC-11009-1] c 06 N80-18038
- Method and apparatus for Delta K synthetic aperture radar measurement of ocean current  
[NASA-CASE-NPO-15704-1] c 32 N82-28502
- Spinning disk calibration method and apparatus for laser Doppler velocimeter  
[NASA-CASE-ARC-11510-1] c 35 N84-25015
- VELOCITY MODULATION**  
Molecular beam velocity selector Patent  
[NASA-CASE-XLE-01533] c 11 N71-10777  
Apparatus for controlling the velocity of an electromechanical drive for interferometers and the like Patent  
[NASA-CASE-XGS-03532] c 14 N71-17627  
Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N80-19425
- VENTILATION**  
Protective garment ventilation system  
[NASA-CASE-XMS-04928] c 54 N78-17679  
Low-drag ground vehicle particularly suited for use in safety transporting livestock  
[NASA-CASE-FRC-11058-1] c 85 N82-33288
- VENTILATORS**  
Heat sterilizable patient ventilator  
[NASA-CASE-NPO-13313-1] c 54 N75-27761
- VENTING**  
Venting vapor apparatus Patent  
[NASA-CASE-XLE-00288] c 15 N70-34247  
Liquid storage tank venting device for zero gravity environment Patent  
[NASA-CASE-XLE-01449] c 15 N70-41646  
Valve seat with resilient support member Patent  
[NASA-CASE-XKS-02582] c 15 N71-21234  
Venting device for pressurized space suit helmet Patent  
[NASA-CASE-XMS-09652-1] c 05 N71-26333  
Solid propellant rocket motor  
[NASA-CASE-XNP-03282] c 28 N72-20758
- VENUS (PLANET)**  
Space simulator Patent  
[NASA-CASE-XNP-00459] c 11 N70-38675
- VERTICAL FLIGHT**  
Aircraft instrument Patent  
[NASA-CASE-XLA-00487] c 14 N70-40157
- VERTICAL LANDING**  
Landing gear Patent  
[NASA-CASE-XMF-01174] c 02 N70-41589
- VERTICAL ORIENTATION**  
Vertical shaft windmill  
[NASA-CASE-LAR-12923-1] c 37 N84-12493
- VERTICAL TAKEOFF AIRCRAFT**  
Mechanical stability augmentation system Patent  
[NASA-CASE-XLA-06339] c 02 N71-13422  
Attitude controls for VTOL aircraft Patent  
[NASA-CASE-XAC-08972] c 02 N71-20570
- VERY HIGH FREQUENCIES**  
VHF/UHF parasitic probe antenna Patent  
[NASA-CASE-XKS-09340] c 07 N71-24614
- VERY LONG BASE INTERFEROMETRY**  
System for real-time crustal deformation monitoring  
[NASA-CASE-NPO-14124-1] c 46 N80-14603
- VESTS**  
Life preserver Patent  
[NASA-CASE-XMS-00864] c 05 N70-36493
- VIBRATION**  
Passive caging mechanism Patent  
[NASA-CASE-GSC-10306-1] c 15 N71-24694  
Active vibration isolator for flexible bodies Patent  
[NASA-CASE-LAR-10106-1] c 15 N71-27169  
Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948  
Apparatus for disintegrating kidney stones  
[NASA-CASE-GSC-12652-1] c 52 N84-34913
- VIBRATION DAMPING**  
Viscous pendulum damper Patent  
[NASA-CASE-LAR-10274-1] c 14 N71-17626  
Digital filter for reducing sampling jitter in digital control systems Patent  
[NASA-CASE-NPO-11088] c 08 N71-29034  
Turbo-machine blade vibration damper Patent  
[NASA-CASE-XLE-00155] c 28 N71-29154  
Active notch filter network with variable notch depth, width and frequency  
[NASA-CASE-FRC-11055-1] c 33 N80-29583
- Arrangement for damping the resonance in a laser diode  
[NASA-CASE-NPO-15980-1] c 36 N82-28618  
Variable force, eddy-current or magnetic damper  
[NASA-CASE-LEW-13717-1] c 39 N83-20284
- VIBRATION EFFECTS**  
Thermal detector of electromagnetic energy by means of a vibrating electrode Patent  
[NASA-CASE-XAC-10768] c 09 N71-18830  
Apparatus for recovering matter adhered to a host surface  
[NASA-CASE-NPO-11213] c 15 N73-20514  
Spherical bearing — to reduce vibration effects  
[NASA-CASE-MFS-23447-1] c 37 N79-11404
- VIBRATION ISOLATORS**  
Variable stiffness polymeric damper  
[NASA-CASE-XAC-11225] c 14 N69-27486  
Miniature vibration isolator Patent  
[NASA-CASE-XLA-01019] c 15 N70-40156  
Vibration damping system Patent  
[NASA-CASE-XMS-01620] c 23 N71-15673  
Hermetic sealed vibration damper Patent  
[NASA-CASE-MSC-10959] c 15 N71-26243  
Dynamic vibration absorber Patent  
[NASA-CASE-LAR-10083-1] c 15 N71-27006  
Vibration isolation system using compression springs  
[NASA-CASE-NPO-11012] c 15 N72-11391  
Thrust-isolating mounting — characteristics of support for loads mounted in spacecraft  
[NASA-CASE-MFS-21680-1] c 18 N74-27397  
Shock absorbing mount for electrical components  
[NASA-CASE-NPO-13253-1] c 37 N75-18573  
Thermal insulation attaching means — adhesive bonding of felt vibration insulators under ceramic tiles  
[NASA-CASE-MSC-12619-2] c 27 N79-12221  
Shock isolator for operating a diode laser on a closed-cycle refrigerator  
[NASA-CASE-GSC-12297-1] c 37 N79-28549  
Decoupler pylon: wing/store flutter suppressor  
[NASA-CASE-LAR-12468-1] c 08 N82-32373  
Vibration isolation and pressure compensation apparatus for sensitive instrumentation  
[NASA-CASE-LAR-12728-1] c 35 N83-32026  
Dual clearance squeeze film damper  
[NASA-CASE-LEW-13506-1] c 07 N84-22562
- VIBRATION MEASUREMENT**  
Method and apparatus for measuring the damping characteristics of a structure  
[NASA-CASE-ARC-10154-1] c 14 N72-22440  
Method and apparatus for vibration analysis utilizing the Mossbauer effect  
[NASA-CASE-XMF-05882] c 35 N75-27329  
Displacement probes with self-contained exciting medium  
[NASA-CASE-LAR-11690-1] c 35 N80-14371
- VIBRATION METERS**  
Fiber optic vibration transducer and analyzer Patent  
[NASA-CASE-XMF-02433] c 14 N71-10616  
Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445
- VIBRATION MODE**  
Function generator for synthesizing complex vibration mode patterns  
[NASA-CASE-LAR-10310-1] c 10 N73-20253
- VIBRATION SIMULATORS**  
Apparatus for vibrational testing of articles  
[NASA-CASE-GSC-11302-1] c 14 N73-13416
- VIBRATION TESTS**  
Peak acceleration limiter for vibrational tester Patent  
[NASA-CASE-NPO-10556] c 14 N71-27185  
Fixture for supporting articles during vibration tests  
[NASA-CASE-MFS-20523] c 14 N72-27412  
Apparatus for vibrational testing of articles  
[NASA-CASE-GSC-11302-1] c 14 N73-13416  
Multi axis vibration fixtures  
[NASA-CASE-MFS-20242] c 14 N73-19421  
Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12458-1] c 44 N83-21503
- VIBRATIONAL SPECTRA**  
Dynamic vibration absorber Patent  
[NASA-CASE-LAR-10083-1] c 15 N71-27006
- VIBRATORY LOADS**  
Rotor blade with passive tuned tab  
[NASA-CASE-ARC-11444-1] c 02 N83-25663
- VIDEO COMMUNICATION**  
Means for generating a sync signal in an FM communication system Patent  
[NASA-CASE-XNP-10830] c 07 N71-11281  
Reduced bandwidth video communication system utilizing sampling techniques Patent  
[NASA-CASE-XNP-02791] c 07 N71-23026  
Video communication system and apparatus Patent  
[NASA-CASE-XNP-06611] c 07 N71-26102  
Sampling video compression system  
[NASA-CASE-ARC-10984-1] c 32 N77-24328

## VIDEO DATA

- Digital television camera control system Patent  
[NASA-CASE-XNP-01472] c 14 N70-41807
- Transient video signal recording with expanded playback Patent  
[NASA-CASE-ARC-10003-1] c 09 N71-25866
- Facsimile video remodulation network  
[NASA-CASE-GSC-10185-1] c 07 N72-12081
- Dual digital video switcher  
[NASA-CASE-KSC-10782-1] c 33 N75-30431

## VIDEO EQUIPMENT

- Television signal processing system Patent  
[NASA-CASE-NPO-10140] c 07 N71-24742
- Video sync processor Patent  
[NASA-CASE-KSC-10002] c 10 N71-25865
- Video communication system and apparatus Patent  
[NASA-CASE-XNP-06611] c 07 N71-26102
- Video signal enhancement system with dynamic range compression and modulation index expansion Patent  
[NASA-CASE-NPO-10343] c 07 N71-27341
- Broadband video process with very high input impedance  
[NASA-CASE-NPO-10199] c 09 N72-17156
- Electronic video editor  
[NASA-CASE-KSC-10003] c 10 N73-13235
- Scan converting video tape recorder  
[NASA-CASE-NPO-10166-1] c 07 N73-22076
- Scan converting video tape recorder  
[NASA-CASE-NPO-10166-2] c 35 N76-16391
- Stack plume visualization system  
[NASA-CASE-LAR-11675-1] c 45 N76-17656
- Television camera video level control system --- space shuttle orbiters  
[NASA-CASE-MSC-18578-1] c 74 N82-27121

## VIDEO SIGNALS

- Programmable scan/read circuitry for charge coupled device imaging detectors --- spacecraft attitude control and star trackers  
[NASA-CASE-NPO-15345-1] c 74 N84-23247

## VIDICONS

- Method of erasing target material of a vidicon tube or the like Patent  
[NASA-CASE-XNP-06028] c 09 N71-23189
- Material handling device Patent  
[NASA-CASE-XNP-09770-3] c 11 N71-27036

## VIEWING

- Real-time 3-D X-ray and gamma-ray viewer  
[NASA-CASE-GSC-12640-1] c 74 N84-11920

## VINYL COPOLYMERS

- Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341

## VINYL POLYMERS

- Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent  
[NASA-CASE-NPO-10373] c 03 N71-18698
- Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-1] c 27 N78-32256
- Compound oxidized styrylphosphine --- flame resistant vinyl polymers  
[NASA-CASE-MSC-14903-2] c 27 N80-10358
- Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-3] c 27 N80-24438

## VINYLIDENE

- Dicyanocetylene polymers Patent  
[NASA-CASE-XNP-03250] c 06 N71-23500

## VIRUSES

- Water system virus detection  
[NASA-CASE-MSC-16098-1] c 51 N79-10693

## VISCOELASTICITY

- Resilience testing device Patent  
[NASA-CASE-XLA-08254] c 14 N71-26161
- Parallel-plate viscometer with double diaphragm suspension  
[NASA-CASE-NPO-11387] c 14 N73-14429
- Shock absorbing mount for electrical components  
[NASA-CASE-NPO-13253-1] c 37 N75-18573
- Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104

## VISCOMETERS

- Parallel plate viscometer Patent  
[NASA-CASE-XNP-09462] c 14 N71-17584
- Parallel-plate viscometer with double diaphragm suspension  
[NASA-CASE-NPO-11387] c 14 N73-14429

## VISCOSITY

- Low viscosity magnetic fluid obtained by the colloidal suspension of magnetic particles Patent  
[NASA-CASE-XLE-01512] c 12 N70-40124
- Viscosity measuring instrument  
[NASA-CASE-NPO-14501-1] c 35 N80-18357
- Melt-flow-toughness modified polyimide  
[NASA-CASE-LAR-13135-1] c 27 N84-34616

## VISCIOUS DAMPING

- Variable stiffness polymeric damper  
[NASA-CASE-XAC-11225] c 14 N69-27486
- Viscous-pendulum-damper Patent  
[NASA-CASE-XLA-02079] c 12 N71-16894
- Viscous pendulum damper Patent  
[NASA-CASE-LAR-10274-1] c 14 N71-17626
- Multiple plate hydrostatic viscous damper  
[NASA-CASE-LEW-12445-1] c 37 N81-22360

## VISIBILITY

- Controlled visibility device for an aircraft Patent  
[NASA-CASE-XFR-04147] c 11 N71-10748
- Reusable captive blind fastener  
[NASA-CASE-MSC-18742-1] c 37 N82-26673

## VISIBLE SPECTRUM

- Spectrally balanced chromatic landing approach lighting system  
[NASA-CASE-ARC-10990-1] c 04 N82-16059

## VISORS

- Anti-fog composition --- for prevention of fogging on surfaces such as space helmet visors and windshields  
[NASA-CASE-MSC-13530-2] c 23 N75-14834

## VISUAL ACUITY

- Multiparameter vision testing apparatus  
[NASA-CASE-MSC-13601-2] c 54 N75-27759

## VISUAL CONTROL

- Visual target for retrofire attitude control  
[NASA-CASE-XMS-12158-1] c 31 N69-27499
- Spectrally balanced chromatic landing approach lighting system  
[NASA-CASE-ARC-10990-1] c 04 N82-16059

## VISUAL FIELDS

- Visual examination apparatus  
[NASA-CASE-ARC-10329-1] c 05 N73-26072
- Visual examination apparatus  
[US-PATENT-RE-28,921] c 52 N76-30793
- Binocular device for displaying numerical information in field of view  
[NASA-CASE-LAR-11782-1] c 74 N77-20882
- Visual accommodation trainer-tester  
[NASA-CASE-ARC-11426-1] c 09 N84-12193

## VISUAL OBSERVATION

- Automatic visual inspection system for microelectronics  
[NASA-CASE-NPO-13282] c 38 N78-17396

## VISUAL PERCEPTION

- Liquid flow sight assembly Patent  
[NASA-CASE-XLE-02998] c 14 N70-42074
- Aircraft control position indicator  
[NASA-CASE-LAR-12984-1] c 06 N84-20522

## VISUAL STIMULI

- Reaction tester  
[NASA-CASE-MSC-13604-1] c 05 N73-13114

## VOICE COMMUNICATION

- Position location system and method Patent  
[NASA-CASE-GSC-10087-2] c 21 N71-13958
- Satellite communication system and method Patent  
[NASA-CASE-GSC-10118-1] c 07 N71-24621
- Protective suit having an audio transceiver Patent  
[NASA-CASE-KSC-10164] c 07 N71-33108
- Technique for recovery of voice data from heat damaged magnetic tape  
[NASA-CASE-MSC-14219-1] c 32 N74-27612
- Filtering device --- removing electromagnetic noise from voice communication signals  
[NASA-CASE-MFS-22729-1] c 32 N78-21366
- Real time analysis of voiced sounds  
[NASA-CASE-NPO-13465-1] c 32 N76-31372
- Satellite personal communications system  
[NASA-CASE-NPO-14480-1] c 32 N80-20448

## VOICE DATA PROCESSING

- Digital communication system  
[NASA-CASE-MSC-13912-1] c 32 N74-30524

## VOLATILITY

- Apparatus for testing polymeric materials Patent  
[NASA-CASE-XNP-09699] c 08 N71-24607

## VOLT-AMPERE CHARACTERISTICS

- Voltage-current characteristic simulator Patent  
[NASA-CASE-XMS-01554] c 10 N71-10578
- The dc-to-dc converters employing staggered-phase power switches with two-loop control  
[NASA-CASE-NPO-13512-1] c 33 N77-10428
- Apparatus including a plurality of spaced transformers for locating short circuits in cables  
[NASA-CASE-KSC-10899-1] c 33 N79-18193

## VOLTAGE AMPLIFIERS

- Electronic amplifier with power supply switching Patent  
[NASA-CASE-XMS-00945] c 09 N71-10798
- Bootstrap unloader Patent  
[NASA-CASE-XNP-09768] c 09 N71-12516
- Active RC networks  
[NASA-CASE-ARC-10020] c 10 N72-17172
- Wide range analog-to-digital converter with a variable gain amplifier  
[NASA-CASE-NPO-11018] c 08 N72-21200

Voltage feed through apparatus having reduced partial discharge  
[NASA-CASE-GSC-12347-1] c 33 N80-16286

## VOLTAGE CONTROLLED OSCILLATORS

- Pulsed phase locked loop strain monitor --- voltage controlled oscillators  
[NASA-CASE-LAR-12772-1] c 33 N83-16626
- Automatic oscillator frequency control system  
[NASA-CASE-GSC-12804-1] c 33 N83-35228

## VOLTAGE CONVERTERS (DC TO DC)

- Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation  
[NASA-CASE-HQN-10792-1] c 33 N74-11049
- The dc-to-dc converters employing staggered-phase power switches with two-loop control  
[NASA-CASE-NPO-13512-1] c 33 N77-10428
- Inrush current limiter  
[NASA-CASE-GSC-11789-1] c 33 N77-14333
- Phase substitution of spare converter for a failed one of parallel phase staggered converters  
[NASA-CASE-NPO-13812-1] c 33 N77-30365
- Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter  
[NASA-CASE-LEW-12781-1] c 33 N78-32341
- Buck/boost regulator  
[NASA-CASE-GSC-12360-1] c 33 N81-19392
- Elimination of current spikes in buck power converters  
[NASA-CASE-NPO-14505-1] c 33 N81-19393
- Push-pull converter with energy saving circuit for protecting switching transistors from peak power stress  
[NASA-CASE-NPO-14316-1] c 33 N81-33404
- Power converter  
[NASA-CASE-FRC-11014-1] c 33 N82-18494
- A dc to dc converter  
[NASA-CASE-MFS-25430-1] c 33 N84-16453
- Simplified dc to dc converter  
[NASA-CASE-LEW-13495-1] c 33 N84-33663

## VOLTAGE GENERATORS

- Pulsed energy power system Patent  
[NASA-CASE-MSC-13112] c 03 N71-11057
- Telemeter adaptable for implanting in an animal Patent  
[NASA-CASE-XAC-05706] c 05 N71-12342
- Multiple slope sweep generator Patent  
[NASA-CASE-XMS-03542] c 09 N71-28926
- Controllable load insensitive power converters  
[NASA-CASE-ERC-10268] c 09 N72-25252
- Driver for solar cell I-V characteristic plots  
[NASA-CASE-NPO-14096-1] c 44 N80-18551
- Adaptive reference voltage generator for firing angle control of line-commutated inverters  
[NASA-CASE-MFS-25215-1] c 33 N83-31953

## VOLTAGE REGULATORS

- Regulated dc to dc converter  
[NASA-CASE-XGS-03429] c 03 N69-21330
- Power control circuit  
[NASA-CASE-XNP-02713] c 10 N69-39888
- Amplifier drift tester  
[NASA-CASE-XMS-05562-1] c 09 N69-39986
- Bus voltage compensation circuit for controlling direct current motor  
[NASA-CASE-XMS-04215-1] c 09 N69-39987
- Regulated power supply Patent  
[NASA-CASE-XMS-01991] c 09 N71-21449
- High voltage divider system Patent  
[NASA-CASE-XLE-02008] c 09 N71-21583
- Power supply circuit Patent  
[NASA-CASE-XMS-00913] c 10 N71-23543
- Voltage to frequency converter Patent  
[NASA-CASE-GSC-10022-1] c 10 N71-25882
- Buck boost voltage regulation circuit Patent  
[NASA-CASE-GSC-10735-1] c 10 N71-26085
- Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244
- Voltage regulator with plural parallel power source sections Patent  
[NASA-CASE-GSC-10891-1] c 10 N71-26626
- Maximum power point tracker Patent  
[NASA-CASE-GSC-10376-1] c 14 N71-27407
- High power microwave power divider Patent  
[NASA-CASE-NPO-11031] c 07 N71-33606
- Reference voltage switching unit  
[NASA-CASE-NPO-11253] c 09 N72-17157
- Switching regulator  
[NASA-CASE-LEW-11005-1] c 09 N72-21243
- Controllable load insensitive power converters  
[NASA-CASE-ERC-10268] c 09 N72-25252
- Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation  
[NASA-CASE-HQN-10792-1] c 33 N74-11049
- Overvoltage protection network  
[NASA-CASE-ARC-10197-1] c 33 N74-17929
- Low distortion automatic phase control circuit --- voltage controlled phase shifter  
[NASA-CASE-MFS-21671-1] c 33 N74-22885



- Voltage monitoring system  
[NASA-CASE-KSC-10736-1] c 33 N75-19521
- Transformer regulated self-stabilizing chopper  
[NASA-CASE-XGS-09186] c 33 N78-17295
- Voltage regulator for battery power source --- using a bipolar transistor  
[NASA-CASE-FRC-10116-1] c 33 N79-23345
- Buck/boost regulator  
[NASA-CASE-GSC-12360-1] c 33 N81-19392
- Motor power factor controller with a reduced voltage starter  
[NASA-CASE-MFS-25586-1] c 33 N82-11360
- Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418
- Three phase power factor controller  
[NASA-CASE-MFS-25535-2] c 33 N84-22885

**VOLTMETERS**

- Voltage monitoring system  
[NASA-CASE-KSC-10736-1] c 33 N75-19521

**VOLUMETRIC ANALYSIS**

- Volumetric direct nuclear pumped laser  
[NASA-CASE-LAR-12183-1] c 36 N79-18307

**VOMITING**

- Venting device for pressurized space suit helmet Patent  
[NASA-CASE-XMS-09652-1] c 05 N71-26333

**VORTEX ALLEVIATION**

- Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495

**VORTEX BREAKDOWN**

- Wingtip vortex dissipator for aircraft  
[NASA-CASE-LAR-11645-1] c 02 N77-10001

**VORTEX FLAPS**

- Leading edge vortex flaps for drag reduction --- during subsonic flight  
[NASA-CASE-LAR-12750-1] c 02 N81-19016

**VORTEX GENERATORS**

- Multiway vortex valve system Patent  
[NASA-CASE-XMF-04709] c 15 N71-15609

- Vortex generator for controlling the dispersion of effluents in a flowing liquid  
[NASA-CASE-LAR-12045-1] c 34 N77-24423

- Wingtip vortex turbine  
[NASA-CASE-LAR-12544-1] c 07 N81-27096

- Vortex generating flow passage design for increased film cooling effectiveness  
[NASA-CASE-LEW-14039-1] c 34 N84-20782

**VORTICES**

- Vortex-lift roll-control device  
[NASA-CASE-LAR-11868-2] c 08 N79-14108

- Pumped vortex  
[NASA-CASE-LAR-12625-1] c 02 N83-19715

**VULCANIZING**

- Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article  
[NASA-CASE-LAR-10489-1] c 31 N74-18124

**W****WAFERS**

- Apparatus and method for separating a semiconductor wafer Patent  
[NASA-CASE-ERC-10138] c 26 N71-14354

- Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction  
[NASA-CASE-MFS-23315-1] c 76 N78-24950

- System for slicing silicon wafers  
[NASA-CASE-NPO-14406-1] c 37 N80-29703

- Scriber for silicon wafers  
[NASA-CASE-NPO-15539-1] c 37 N82-11469

- Improved ingot slicing machine  
[NASA-CASE-NPO-15483-1] c 37 N82-28642

- Method of Fabricating Schottky Barrier solar cell  
[NASA-CASE-NPO-13689-4] c 44 N82-28780

- Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709

- High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31764

- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-15670-1] c 33 N82-33634

- High voltage v-groove solar cell  
[NASA-CASE-LEW-13401-2] c 44 N83-32177

- Method of increasing minority carrier lifetime in silicon web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888

- Method for sequentially processing a multi-level interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884

- Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765

- Epitaxial thinning process  
[NASA-CASE-NPO-15786-1] c 76 N84-35112

- Process and apparatus for growing a crystal ribbon  
[NASA-CASE-NPO-15629-1] c 76 N84-35113

**WALL TEMPERATURE**

- Method of making apparatus for sensing temperature  
[NASA-CASE-XLE-05230-2] c 14 N73-13417

- Structural heat pipe --- for spacecraft wall thermal insulation system  
[NASA-CASE-GSC-11619-1] c 34 N75-12222

- Thermal control canister  
[NASA-CASE-GSC-12253-1] c 34 N79-31523

- Curved film cooling admission tube  
[NASA-CASE-LEW-13174-1] c 34 N83-27144

- Formed metal ribbon wrap Patent  
[NASA-CASE-XLE-00164] c 15 N70-36411

- Out of tolerance warning alarm system for plurality of monitored circuits Patent  
[NASA-CASE-XMS-10984-1] c 10 N71-19417

- Unsaturating saturable core transformer Patent  
[NASA-CASE-ERC-10125] c 09 N71-24893

- Electrical apparatus for detection of thermal decomposition of insulation Patent  
[NASA-CASE-XMF-03968] c 14 N71-27186

- Combustion products generating and metering device  
[NASA-CASE-GSC-11095-1] c 14 N72-10375

- Stacked array of omnidirectional antennas  
[NASA-CASE-LAR-10545-1] c 09 N72-21244

- Display research collision warning system  
[NASA-CASE-HQN-10703] c 21 N73-13643

- System for indicating direction of intruder aircraft  
[NASA-CASE-ERC-10226-1] c 14 N73-16483

- Silent emergency alarm system for schools and the like  
[NASA-CASE-NPO-11307-1] c 10 N73-30205

- Apparatus for aiding a pilot in avoiding a midair collision between aircraft  
[NASA-CASE-LAR-10717-1] c 21 N73-30641

- Inverter ratio failure detector  
[NASA-CASE-NPO-13160-1] c 35 N74-18090

- Hearing aid malfunction detection system  
[NASA-CASE-MSC-14916-1] c 33 N78-10375

- Automatic communication signal monitoring system  
[NASA-CASE-NPO-13941-1] c 32 N79-10262

- Passive intrusion detection system  
[NASA-CASE-NPO-13804-1] c 33 N80-23559

- Scanning seismic intrusion detection method and apparatus --- monitoring unwanted subterranean entry and departure  
[NASA-CASE-ARC-11317-1] c 35 N83-34272

- WASHERS (SPACERS)  
Constant force friction damper  
[NASA-CASE-MSC-20505-1] c 18 N84-22611

- Method of neutralizing the corrosive surface of amine-cured epoxy resins  
[NASA-CASE-GSC-12686-1] c 27 N83-34039

- WASTE DISPOSAL  
Relief container  
[NASA-CASE-XMS-06761] c 05 N69-23192

- An airtlock  
[NASA-CASE-MFS-20922] c 31 N72-20840

- Liquid waste feed system  
[NASA-CASE-LAR-10365-1] c 05 N72-27102

- Reduced gravity fecal collector seat and urinal  
[NASA-CASE-MFS-22102-1] c 54 N74-20725

- Airtlock  
[NASA-CASE-MFS-20922-1] c 18 N74-22136

- Automatic liquid inventory collecting and dispensing unit  
[NASA-CASE-LAR-11071-1] c 35 N75-19611

- Automatic biowaste sampling  
[NASA-CASE-MSC-14640-1] c 54 N76-14804

- Absorbent product and articles made therefrom  
[NASA-CASE-MSC-18223-2] c 54 N84-11758

- WASTE ENERGY UTILIZATION  
Automotive absorption air conditioner utilizing solar and motor waste heat  
[NASA-CASE-NPO-15183-1] c 44 N82-26776

- Apparatus for improving the fuel efficiency of a gas turbine engine  
[NASA-CASE-LEW-13142-1] c 07 N83-36029

- WASTE HEAT  
Thermal control system --- removing waste heat from industrial process spacecraft  
[NASA-CASE-GSC-12771-1] c 34 N84-14461

- Simultaneous treatment of SO<sub>2</sub> containing stack gases and waste water  
[NASA-CASE-MSC-16258-1] c 45 N79-12584

- Water system virus detection  
[NASA-CASE-MSC-16098-1] c 51 N79-10693

- Process for purification of waste water produced by a Kraft process pulp and paper mill  
[NASA-CASE-NPO-13847-2] c 85 N79-17747

- Method for treating wastewater using microorganisms and vascular aquatic plants  
[NASA-CASE-NSTL-10] c 45 N84-12654

- High power-high voltage waterload Patent  
[NASA-CASE-XNP-05381] c 09 N71-20842

- Procedure and apparatus for determination of water in nitrogen tetroxide  
[NASA-CASE-NPO-10234] c 06 N72-17094

- Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-1] c 37 N76-16446

- Solar hydrogen generator  
[NASA-CASE-LAR-11361-1] c 44 N77-22607

- Remote water monitoring system  
[NASA-CASE-LAR-11973-1] c 35 N78-27384

- Solar photolysis of water  
[NASA-CASE-NPO-14126-1] c 44 N79-11470

- Potable water dispenser  
[NASA-CASE-MFS-21115-1] c 54 N74-12779

- Reentry communication by material addition Patent  
[NASA-CASE-XLA-01552] c 07 N71-11284

- Self-charging metering and dispensing device for fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856

- Vehicle parachute and equipment jettison system Patent  
[NASA-CASE-XLA-00195] c 02 N70-38009

- Emergency earth orbital escape device  
[NASA-CASE-MSC-13281] c 31 N72-18859

- Water management system and an electrolytic cell therefor Patent  
[NASA-CASE-MSC-10960-1] c 03 N71-24718

- Solar-powered pump  
[NASA-CASE-NPO-13567-1] c 44 N76-29701

- Compact solar still Patent  
[NASA-CASE-XMS-04533] c 15 N71-23086

- Bacterial contamination monitor  
[NASA-CASE-GSC-10879-1] c 14 N72-25413

- Method and automated apparatus for detecting coliform organisms  
[NASA-CASE-MSC-16777-1] c 51 N80-27067

- Fluid sample collection and distribution system --- qualitative analysis of aqueous samples from several points  
[NASA-CASE-MSC-16841-1] c 34 N79-24285

- Rapid, quantitative determination of bacteria in water --- adenosine triphosphate  
[NASA-CASE-GSC-12158-1] c 51 N83-27569

- Method for detecting coliform organisms  
[NASA-CASE-ARC-11322-1] c 51 N83-28849

- Recovery of potable water from human wastes in below-G conditions Patent  
[NASA-CASE-XLA-03213] c 05 N71-11207

- Water system virus detection  
[NASA-CASE-MSC-16098-1] c 51 N79-10693

- Water separator  
[NASA-CASE-XMS-01295-1] c 37 N79-21345

- Radar target for remotely sensing hydrological phenomena  
[NASA-CASE-LAR-12344-1] c 43 N80-18498

- Differential temperature transducer Patent  
[NASA-CASE-XAC-00812] c 14 N71-15598

- Water management system and an electrolytic cell therefor Patent  
[NASA-CASE-MSC-10960-1] c 03 N71-24718

- Method of preparing water purification membranes --- polymerization of allyl amine as thin films in plasma discharge  
[NASA-CASE-ARC-10643-1] c 25 N75-12087

- Iodine generator for reclaimed water purification  
[NASA-CASE-MSC-14632-1] c 54 N78-14784

- Water system virus detection  
[NASA-CASE-MSC-16098-1] c 51 N79-10693

- Simultaneous treatment of SO<sub>2</sub> containing stack gases and waste water  
[NASA-CASE-MSC-16258-1] c 45 N79-12584

- Process for purification of waste water produced by a Kraft process pulp and paper mill  
[NASA-CASE-NPO-13847-2] c 85 N79-17747

- Ozonation of cooling tower waters  
[NASA-CASE-NPO-14340-1] c 45 N80-14579

- Reverse osmosis membrane of high urea rejection properties --- water purification  
[NASA-CASE-ARC-10980-1] c 27 N80-23452

- Membrane consisting of polyquaternary amine ion exchange polymer network interpenetrating the chains of thermoplastic matrix polymer  
[NASA-CASE-NPO-14001-1] c 27 N81-14076
- Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634
- Method for treating wastewater using microorganisms and vascular aquatic plants  
[NASA-CASE-NSTL-10] c 45 N84-12654
- WATER VAPOR**
- Vapor pressure measuring system and method Patent  
[NASA-CASE-XMS-01618] c 14 N71-20741
- Cell and method for electrolysis of water and anode  
[NASA-CASE-MSC-16394-1] c 28 N81-24280
- Geodetic distance measuring apparatus  
[NASA-CASE-GSC-12609-2] c 36 N83-29681
- WATER WAVES**
- Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks  
[NASA-CASE-NPO-13862-1] c 35 N79-10391
- Oceanic wave measurement system  
[NASA-CASE-MFS-23862-1] c 48 N80-18667
- WATERPROOFING**
- Glass-to-metal seals comprising relatively high expansion metals  
[NASA-CASE-LEW-10698-1] c 37 N74-21063
- Elevated waterproof access floor system and method of making the same  
[NASA-CASE-ARC-11363-1] c 31 N83-28281
- WATERWAVE ENERGY CONVERSION**
- Natural turbulence electrical power generator --- using wave action or random motion  
[NASA-CASE-LAR-11551-1] c 44 N80-29834
- WAVE AMPLIFICATION**
- Distributed feedback acoustic surface wave oscillator  
[NASA-CASE-NPO-13673-1] c 71 N77-26919
- WAVE DIFFRACTION**
- Diffraction grating configuration for X-ray and ultraviolet focusing  
[NASA-CASE-GSC-12357-1] c 74 N80-21140
- WAVE FRONT RECONSTRUCTION**
- Recording and reconstructing focused image holograms Patent  
[NASA-CASE-ERC-10017] c 16 N71-15567
- WAVE GENERATION**
- Wind tunnel airstream oscillating apparatus Patent  
[NASA-CASE-XLA-00112] c 11 N70-33287
- Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent  
[NASA-CASE-XMS-01315] c 09 N70-41675
- Waveform simulator Patent  
[NASA-CASE-NPO-10251] c 10 N71-27365
- Wide band doubler and sine wave quadrature generator  
[NASA-CASE-NPO-11133] c 10 N72-20223
- Material suspension within an acoustically excited resonant chamber --- at near weightless conditions  
[NASA-CASE-NPO-13263-1] c 12 N75-24774
- Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948
- WAVE INTERACTION**
- Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N82-26568
- WAVE PROPAGATION**
- A dual differential interferometer  
[NASA-CASE-LAR-12966-1] c 71 N83-12969
- WAVE REFLECTION**
- Microwave flaw detector Patent  
[NASA-CASE-ARC-10009-1] c 15 N71-17822
- Millimeter wave antenna system Patent Application  
[NASA-CASE-GSC-10949-1] c 07 N71-28965
- WAVE SCATTERING**
- Device and method for determining X ray reflection efficiency of optical surfaces  
[NASA-CASE-MFS-20243] c 23 N73-13662
- WAVEFORMS**
- Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00131] c 09 N70-38995
- Single or joint amplitude distribution analyzer Patent  
[NASA-CASE-XNP-01383] c 09 N71-10659
- Peak polarity selector Patent  
[NASA-CASE-FRC-10010] c 10 N71-24862
- Family of frequency to amplitude converters  
[NASA-CASE-MSC-12395] c 09 N72-25257
- Apparatus for statistical time-series analysis of electrical signals  
[NASA-CASE-MSC-12428-1] c 10 N73-25240
- Low distortion receiver for bi-level baseband PCM waveforms  
[NASA-CASE-MSC-14557-1] c 32 N76-16249
- Speech analyzer  
[NASA-CASE-GSC-11898-1] c 32 N77-30309
- Lightning current waveform measuring system  
[NASA-CASE-KSC-11018-1] c 33 N79-10337
- WAVEGUIDE ANTENNAS**
- Virtual wall slot circularly polarized planar array antenna  
[NASA-CASE-NPO-10301] c 07 N72-11148
- WAVEGUIDE FILTERS**
- High power microwave power divider Patent  
[NASA-CASE-NPO-11031] c 07 N71-33606
- WAVEGUIDE WINDOWS**
- Broadband microwave waveguide window Patent  
[NASA-CASE-XNP-08880] c 09 N71-24808
- WAVEGUIDES**
- Dual waveguide mode source having control means for adjusting the relative amplitude of two modes Patent  
[NASA-CASE-XNP-03134] c 07 N71-10676
- Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550
- Quasi-optical microwave component Patent  
[NASA-CASE-ERC-10011] c 07 N71-29065
- Waveguide mixer  
[NASA-CASE-ERC-10179] c 07 N72-20141
- Active microwave iris and windows  
[NASA-CASE-LAR-10513-1] c 07 N72-25170
- Thin film microwave iris  
[NASA-CASE-LAR-10511-1] c 09 N72-29172
- Resonant waveguide stark cell --- using microwave spectrometers  
[NASA-CASE-LAR-11352-1] c 33 N75-26245
- Diffused waveguiding capillary tube with distributed feedback for a gas laser  
[NASA-CASE-NPO-13544-1] c 36 N76-18428
- Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures  
[NASA-CASE-NPO-14254-1] c 36 N80-18372
- Support assembly for cryogenically coolable low-noise choke waveguide  
[NASA-CASE-NPO-14253-1] c 32 N80-32605
- Coaxial phased array antenna  
[NASA-CASE-MSC-16800-1] c 32 N81-14187
- Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N82-26568
- Waveguide cooling system  
[NASA-CASE-NPO-15401-1] c 32 N83-27085
- WAVELENGTHS**
- Method and apparatus for wavelength tuning of liquid lasers  
[NASA-CASE-ERC-10187] c 16 N69-31343
- Instrument for the quantitative measurement of radiation at multiple wave lengths Patent  
[NASA-CASE-XLE-00011] c 14 N70-41946
- Optical systems having spatially invariant outputs  
[NASA-CASE-ERC-10248] c 14 N72-17323
- Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409
- Monitoring deposition of films  
[NASA-CASE-MFS-20675] c 26 N73-26751
- Dual wavelength scanning Doppler velocimeter --- without perturbation of flow fields  
[NASA-CASE-ARC-10637-1] c 35 N75-16783
- Diatom infrared gasdynamic laser --- for producing different wavelengths  
[NASA-CASE-ARC-10370-1] c 36 N75-31426
- Fluorescent radiation converter  
[NASA-CASE-GSC-12528-1] c 74 N81-24900
- Acoustic levitation methods and apparatus  
[NASA-CASE-NPO-15562-1] c 71 N82-27086
- Extended range X-ray telescope  
[NASA-CASE-MFS-25282-1] c 34 N83-19015
- Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680
- Acoustic suspension system  
[NASA-CASE-NPO-15435-1] c 71 N83-36846
- WAVES**
- Natural turbulence electrical power generator --- using wave action or random motion  
[NASA-CASE-LAR-11551-1] c 44 N80-29834
- WEAR**
- Refractory coatings  
[NASA-CASE-LEW-13189-2] c 26 N82-30371
- WEAR INHIBITORS**
- Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-19540
- WEATHERPROOFING**
- Weatherproof helix antenna Patent  
[NASA-CASE-XKS-08485] c 07 N71-19493
- WEBS (SHEETS)**
- Method and apparatus for measuring web material wound on a reel  
[NASA-CASE-GSC-11902-1] c 38 N77-17495
- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-1] c 35 N82-25484
- Instrumentation for sensing moisture content of material using a transient thermal pulse  
[NASA-CASE-NPO-15494-2] c 35 N84-22935
- WEBS (SUPPORTS)**
- Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-2] c 07 N78-18066
- Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-3] c 07 N79-14096
- WEDGES**
- Two dimensional wedge/translating shroud nozzle  
[NASA-CASE-LAR-11919-1] c 07 N78-27121
- Interlocking wedge joint  
[NASA-CASE-LAR-12729-1] c 37 N82-26676
- WEIGHT (MASS)**
- Suspended mass impact damper Patent  
[NASA-CASE-LAR-10193-1] c 15 N71-27146
- System for indicating fuel-efficient aircraft altitude  
[NASA-CASE-NPO-15351-2] c 06 N84-34443
- WEIGHT INDICATORS**
- Device for monitoring a change in mass in varying gravimetric environments  
[NASA-CASE-MFS-21556-1] c 35 N74-26945
- WEIGHT MEASUREMENT**
- Automatic force measuring system Patent  
[NASA-CASE-XLA-02605] c 14 N71-10773
- Device for monitoring a change in mass in varying gravimetric environments  
[NASA-CASE-MFS-21556-1] c 35 N74-26945
- Portable pallet weight apparatus  
[NASA-CASE-GSC-12789-1] c 35 N83-13425
- WEIGHTLESSNESS**
- Apparatus for transferring cryogenic liquids Patent  
[NASA-CASE-XLE-00345] c 15 N70-38020
- Liquid-gas separation system Patent  
[NASA-CASE-XMS-01624] c 15 N70-40062
- Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233
- Zero gravity starting means for liquid propellant motors Patent  
[NASA-CASE-XNP-01390] c 28 N70-41275
- Liquid-gas separator for zero gravity environment Patent  
[NASA-CASE-XMS-01492] c 05 N70-41297
- Recovery of potable water from human wastes in below-G conditions Patent  
[NASA-CASE-XLA-03213] c 05 N71-11207
- Zero gravity separator Patent  
[NASA-CASE-XLE-00586] c 15 N71-15968
- Reduced gravity simulator Patent  
[NASA-CASE-XLA-01787] c 11 N71-16028
- Method and apparatus of simulating zero gravity conditions Patent  
[NASA-CASE-MFS-12750] c 27 N71-16223
- Quick disconnect latch and handle combination Patent  
[NASA-CASE-MFS-11132] c 15 N71-17649
- Spherical tank gauge Patent  
[NASA-CASE-XMS-06236] c 14 N71-21007
- Zero gravity apparatus Patent  
[NASA-CASE-XMF-06515] c 14 N71-23227
- Skeletal stressing method and apparatus Patent  
[NASA-CASE-ARC-10100-1] c 05 N71-24738
- Material handling device Patent  
[NASA-CASE-XNP-09770-3] c 11 N71-27036
- Method of making foamed materials in zero gravity  
[NASA-CASE-XMF-09902] c 15 N72-11387
- Remote control manipulator for zero gravity environment  
[NASA-CASE-MFS-14405] c 15 N72-28495
- Zero gravity liquid mixer  
[NASA-CASE-LAR-10195-1] c 15 N73-19458
- Zero gravity liquid transfer screen  
[NASA-CASE-KSC-10626] c 14 N73-27378
- Reduced gravity fecal collector seat and urinal  
[NASA-CASE-MFS-22102-1] c 54 N74-20725
- Apparatus for conducting flow electrophoresis in the substantial absence of gravity  
[NASA-CASE-MFS-21394-1] c 34 N74-27744
- Rotary plant growth accelerating apparatus --- weightlessness  
[NASA-CASE-ARC-10722-1] c 51 N75-25503
- Fluid control apparatus and method  
[NASA-CASE-LAR-11110-1] c 34 N75-26282
- Method for manufacturing mirrors in zero gravity environment  
[NASA-CASE-MSC-12611-1] c 12 N78-15189
- Fluid mass sensor for a zero gravity environment  
[NASA-CASE-MSC-14653-1] c 35 N77-19385
- Method of crystallization --- in gravity-free environments  
[NASA-CASE-MFS-23001-1] c 76 N77-32919
- Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278
- Method and apparatus for producing concentric hollow spheres --- inertial confinement fusion targets  
[NASA-CASE-NPO-14596-1] c 31 N81-33319

## WEIGHTLESSNESS SIMULATION

- Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988
- Mass measuring system Patent  
[NASA-CASE-XMS-03371] c 05 N70-42000
- Harness assembly Patent  
[NASA-CASE-MFS-14671] c 05 N71-12341
- Whole body measurement systems --- for weightlessness simulation  
[NASA-CASE-MSC-13972-1] c 52 N74-10975

## WELD STRENGTH

- Grain refinement control in TIG arc welding  
[NASA-CASE-MSC-19095-1] c 37 N75-19683

## WELD TESTS

- Determination of spot weld quality Patent  
[NASA-CASE-XNP-02588] c 15 N71-18613
- Method and apparatus for swept-frequency impedance measurements of welds  
[NASA-CASE-ARC-10176-1] c 15 N72-21464

## WELDED JOINTS

- Apparatus for welding blades to rotors  
[NASA-CASE-LEW-10533-2] c 37 N74-11300
- Ultrasonic scanning system for in-place inspection of brazed tube joints  
[NASA-CASE-MFS-20767-1] c 38 N74-15130
- Device for measuring the ferrite content in an austenitic stainless-steel weld  
[NASA-CASE-MFS-22907-1] c 26 N76-18257
- Capillary flow weld-bonding  
[NASA-CASE-LAR-11726-1] c 37 N76-27568

## WELDED STRUCTURES

- Grain refinement control in TIG arc welding  
[NASA-CASE-MSC-19095-1] c 37 N75-19683
- Flanged major modular assembly jig  
[NASA-CASE-MSC-19372-1] c 39 N76-31562
- Weld-bonded titanium structures  
[NASA-CASE-LAR-11549-1] c 37 N77-11397
- Bimetallic junctions  
[NASA-CASE-LEW-11573-1] c 26 N77-28265

## WELDING

- Segmented back-up bar Patent  
[NASA-CASE-XMF-00640] c 15 N70-39924
- Flexible back-up bar Patent  
[NASA-CASE-XMF-00722] c 15 N70-40204
- Apparatus for welding sheet material --- butt joints  
[NASA-CASE-XMS-01330] c 37 N75-27376
- Weld-bonded titanium structures  
[NASA-CASE-LAR-11549-1] c 37 N77-11397
- Method and apparatus for holding two separate metal pieces together for welding  
[NASA-CASE-GSC-12318-1] c 37 N80-23655
- Automatic weld torch guidance control system  
[NASA-CASE-MFS-25807] c 37 N83-20154
- Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338

## WELDING MACHINES

- Apparatus for welding torch angle and seam tracking control Patent  
[NASA-CASE-XMF-03287] c 15 N71-15607
- Automatic welding speed controller Patent  
[NASA-CASE-XMF-01730] c 15 N71-23050
- Electric welding torch Patent  
[NASA-CASE-XMF-02330] c 15 N71-23798
- Welding skate with computerized control Patent  
[NASA-CASE-XMF-07069] c 15 N71-23815
- Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421

## WET CELLS

- Method and device for determining battery state of charge Patent  
[NASA-CASE-NPO-10194] c 03 N71-20407

## WETTING

- Pretreatment method for anti-wettable materials  
[NASA-CASE-XMS-03537] c 15 N69-21471

## WHEATSTONE BRIDGES

- Self-balancing strain gage transducer Patent  
[NASA-CASE-MFS-12827] c 14 N71-17656
- Method for improving the signal-to-noise ratio of the Wheatstone bridge type bolometer Patent  
[NASA-CASE-XLA-02810] c 14 N71-25901
- Temperature control system with a pulse width modulated bridge  
[NASA-CASE-NPO-11304] c 14 N73-26430

## WHISKER COMPOSITES

- Reinforced metallic composites Patent  
[NASA-CASE-XLE-00228] c 17 N70-38490

## WHISKERS (CRYSTALS)

- Catalyst for growth of boron carbide single crystal whiskers  
[NASA-CASE-XHO-03903] c 15 N69-21922

## WICKS

- Method of forming a wick for a heat pipe  
[NASA-CASE-NPO-13391-1] c 34 N76-27515

## WIDE ANGLE LENSES

- Wide angle long eye relief eyepiece Patent  
[NASA-CASE-XMS-06056-1] c 23 N71-24857

## WIDEBAND COMMUNICATION

- Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346
- Multiple band circularly polarized microstrip antenna  
[NASA-CASE-MSC-18334-1] c 32 N80-32604

## WINCHES

- Winch having cable position and load indicators Patent  
[NASA-CASE-MSC-12052-1] c 15 N71-24599

## WIND DIRECTION

- Radionuclide counting technique for measuring wind velocity and direction  
[NASA-CASE-LAR-12971-1] c 47 N84-28292

## WIND EFFECTS

- Viscous pendulum damper Patent  
[NASA-CASE-LAR-10274-1] c 14 N71-17626
- Aircraft lifter  
[NASA-CASE-LAR-12518-1] c 06 N84-32383

## WIND MEASUREMENT

- Passive optical wind and turbulence detection system Patent  
[NASA-CASE-XMF-14032] c 20 N71-16340
- Maxometers (peak wind speed anemometers)  
[NASA-CASE-MFS-20916] c 14 N73-25460
- Wind sensor  
[NASA-CASE-NPO-13462-1] c 35 N76-24524
- Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493
- Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753

## WIND PROFILES

- Wind velocity probing device and method Patent  
[NASA-CASE-XLA-02081] c 20 N71-16281

## WIND SHEAR

- CAT altitude avoidance system  
[NASA-CASE-NPO-15351-1] c 06 N83-10040
- Aircraft lifter  
[NASA-CASE-LAR-12518-1] c 06 N84-32383

## WIND TUNNEL APPARATUS

- Wind tunnel airstream oscillating apparatus Patent  
[NASA-CASE-XLA-00112] c 11 N70-33287
- Electric arc device for heating gases Patent  
[NASA-CASE-XAC-00319] c 25 N70-41628
- Test unit free-flight suspension system Patent  
[NASA-CASE-XLA-00939] c 11 N71-15926
- Burst diaphragm flow initiator Patent  
[NASA-CASE-MFS-12915] c 11 N71-17600
- Electric arc apparatus Patent  
[NASA-CASE-XAC-01677] c 09 N71-20816
- Model launcher for wind tunnels Patent  
[NASA-CASE-XNP-03578] c 11 N71-23030
- Wind tunnel microphone structure Patent  
[NASA-CASE-XNP-00250] c 11 N71-28779
- Wind tunnel  
[NASA-CASE-LAR-10135-1] c 09 N79-21083
- Metric half-span model support system  
[NASA-CASE-LAR-12441-1] c 09 N82-23254
- Continuous laminar smoke generator --- visualizing flow around wind tunnel models  
[NASA-CASE-LAR-13014-1] c 28 N83-35158

## WIND TUNNEL CALIBRATION

- Rotary target V-block  
[NASA-CASE-LAR-12007-3] c 35 N84-16523

## WIND TUNNEL DRIVES

- Electric arc driven wind tunnel Patent  
[NASA-CASE-XMF-00411] c 11 N70-36913

## WIND TUNNEL MODELS

- Flow field simulation Patent  
[NASA-CASE-LAR-11138] c 12 N71-20436
- Multilegged support system Patent  
[NASA-CASE-XLA-01326] c 11 N71-21481
- Model launcher for wind tunnels Patent  
[NASA-CASE-XNP-03578] c 11 N71-23030
- Wind tunnel model damper Patent  
[NASA-CASE-XLA-09480] c 11 N71-33612
- Wind tunnel model and method  
[NASA-CASE-LAR-10812-1] c 09 N74-17955
- Method for determining thermo-physical properties of specimens --- photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel  
[NASA-CASE-LAR-11053-1] c 25 N74-18551
- Metric half-span model support system  
[NASA-CASE-LAR-12441-1] c 09 N82-23254
- Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12458-1] c 44 N83-21503
- Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12720-1] c 44 N83-21504
- Model mount system for testing flutter  
[NASA-CASE-LAR-12950-1] c 09 N84-34448

## WIND TUNNEL NOZZLES

- Multi-purpose wind tunnel reaction control model block  
[NASA-CASE-MSC-19706-1] c 09 N78-31129

- Wind tunnel supplementary Mach number minimum section insert  
[NASA-CASE-LAR-12532-1] c 09 N82-11088

## WIND TUNNEL TESTS

- Metallic hot wire anemometer --- for high speed wind tunnel tests  
[NASA-CASE-ARC-10911-1] c 35 N77-20400
- Multi-purpose wind tunnel reaction control model block  
[NASA-CASE-MSC-19706-1] c 09 N78-31129
- Metric half-span model support system  
[NASA-CASE-LAR-12441-1] c 09 N82-23254

## WIND TUNNEL WALLS

- Sound shield  
[NASA-CASE-LAR-12883-1] c 71 N83-17235

## WIND TUNNELS

- Thin film gauge --- for measuring convective heat transfer rates along test surfaces in wind tunnels  
[NASA-CASE-NPO-10617-1] c 35 N74-22095
- Wind tunnel flow generation section  
[NASA-CASE-ARC-10710-1] c 09 N75-12969
- Apparatus for reducing aerodynamic noise in a wind tunnel  
[NASA-CASE-MFS-23099-1] c 09 N76-23273
- Static pressure orifice system testing method and apparatus  
[NASA-CASE-LAR-12269-1] c 35 N80-18358
- WIND TURBINES
- Amplified wind turbine apparatus  
[NASA-CASE-MFS-23830-1] c 44 N82-24639
- Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018

## WIND VANES

- Miniature electro-optical air flow sensor  
[NASA-CASE-LAR-13065-1] c 74 N83-25539

## WIND VELOCITY

- Radionuclide counting technique for measuring wind velocity and direction  
[NASA-CASE-LAR-12971-1] c 47 N84-28292
- Aircraft lifter  
[NASA-CASE-LAR-12518-1] c 06 N84-32383

## WIND VELOCITY MEASUREMENT

- Wind velocity probing device and method Patent  
[NASA-CASE-XLA-02081] c 20 N71-16281
- Aircraft lifter  
[NASA-CASE-LAR-12518-1] c 06 N84-32383

## WINDING

- Conically shaped cavity radiometer with a dual purpose cone winding Patent  
[NASA-CASE-XNP-09701] c 14 N71-26475
- Pulse coupling circuit  
[NASA-CASE-LEW-10433-1] c 09 N72-22197

## WINDMILLS (WINDPOWERED MACHINES)

- Electrical power generating system --- for windpowered generation  
[NASA-CASE-MFS-24368-3] c 33 N81-22280
- Vertical shaft windmill  
[NASA-CASE-LAR-12923-1] c 37 N84-12493
- Coupling an induction motor type generator to ac power lines --- making windmill generators compatible with public power lines  
[NASA-CASE-MFS-25302-2] c 33 N84-33660

## WINDOWS (APERTURES)

- Active microwave irises and windows  
[NASA-CASE-LAR-10513-1] c 07 N72-25170
- Observation window for a gas confining chamber  
[NASA-CASE-NPO-10890] c 11 N73-12265
- Light transmitting window assembly  
[NASA-CASE-MSC-18417-1] c 74 N84-23251

## WINDPOWER UTILIZATION

- Amplified wind turbine apparatus  
[NASA-CASE-MFS-23830-1] c 44 N82-24639
- Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018

## WINDPOWERED GENERATORS

- Wind wheel electric power generator  
[NASA-CASE-MFS-23515-1] c 44 N80-21828
- Electrical power generating system --- for windpowered generation  
[NASA-CASE-MFS-24368-3] c 33 N81-22280

## WINDSHIELDS

- Transparent fire resistant polymeric structures  
[NASA-CASE-ARC-10813-1] c 27 N76-16230

## WING CAMBER

- Slotted variable camber flap  
[NASA-CASE-LAR-12541-1] c 05 N84-22551

## WING FLAPS

- Jet aircraft configuration Patent  
[NASA-CASE-XLA-00087] c 02 N70-33332
- Slotted variable camber flap  
[NASA-CASE-LAR-12541-1] c 05 N84-22551

## WING PROFILES

- Variable-span aircraft Patent  
[NASA-CASE-XLA-00166] c 02 N70-34178
- Annular wing  
[NASA-CASE-FRC-11007-2] c 05 N82-26277

## WING ROOTS

Solar powered aircraft  
[NASA-CASE-LAR-12615-1] c 05 N84-12154

## WING SLOTS

Slotted variable camber flap  
[NASA-CASE-LAR-12541-1] c 05 N84-22551

## WING TIP VORTICES

Wingtip vortex dissipator for aircraft  
[NASA-CASE-LAR-11645-1] c 02 N77-10001

Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495

## WING TIPS

Smoke generator  
[NASA-CASE-ARC-10905-1] c 37 N77-13418

Wingtip vortex turbine  
[NASA-CASE-LAR-12544-1] c 07 N81-27096

## WINGS

Ferry system  
[NASA-CASE-LAR-10574-1] c 11 N73-13257

Surface finishing --- for aircraft wings  
[NASA-CASE-MS-C-12631-1] c 24 N77-28225

Free wing assembly for an aircraft  
[NASA-CASE-FRC-10092-1] c 05 N79-12061

Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure pressure levels during wind tunnel tests  
[NASA-CASE-LAR-12261-1] c 02 N80-20224

System for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations  
[NASA-CASE-FRC-11024-1] c 02 N80-28300

Means for controlling aerodynamically induced twist  
[NASA-CASE-LAR-12175-1] c 05 N82-28279

Decoupler pylon: wing/store flutter suppressor  
[NASA-CASE-LAR-12468-1] c 08 N82-32373

Piezoelectric deicing device  
[NASA-CASE-LEW-13773-2] c 35 N84-32782

## WIRE

Transpiration cooled turbine blade manufactured from wires Patent  
[NASA-CASE-XLE-00020] c 15 N70-33226

Soldering device Patent  
[NASA-CASE-XLA-08911] c 15 N71-27214

Forming tool for ribbon or wire  
[NASA-CASE-XLA-05966] c 15 N72-12408

Method of removing insulated material from insulated wires  
[NASA-CASE-FRC-10038] c 15 N72-20444

Shielded flat cable  
[NASA-CASE-MFS-13687-2] c 09 N72-22198

Butt welder for fine gauge tungsten/rhenium thermocouple wire  
[NASA-CASE-LAR-10103-1] c 15 N73-14468

Method of fabricating a twisted composite superconductor  
[NASA-CASE-LEW-11015] c 26 N73-32571

Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338

Apparatus for disintegrating kidney stones  
[NASA-CASE-GSC-12652-1] c 52 N84-34913

## WIRE BRIDGE CIRCUITS

Cavity radiometer Patent  
[NASA-CASE-XNP-08961] c 14 N71-24809

## WIRE CLOTH

Insulating structure Patent  
[NASA-CASE-XMF-00341] c 15 N70-33323

Method of making screen by casting Patent  
[NASA-CASE-XLE-00953] c 15 N71-15966

## WIRE WINDING

Adjustable tension wire guide Patent  
[NASA-CASE-XMS-02383] c 15 N71-15918

Superconducting alternator Patent  
[NASA-CASE-XLE-02823] c 09 N71-23443

Electric motive machine including magnetic bearing  
[NASA-CASE-XGS-07805] c 15 N72-33476

Laser measuring system for incremental assemblies --- measuring wire-wrapped frame assemblies in spark chambers  
[NASA-CASE-GSC-12321-1] c 36 N82-16396

## WIRELESS COMMUNICATION

Silent emergency alarm system for schools and the like  
[NASA-CASE-NPO-11307-1] c 10 N73-30205

RF beam center location method and apparatus for power transmission system  
[NASA-CASE-NPO-13821-1] c 44 N78-28594

## WIRING

Apparatus for testing wiring harness by vibration generating means  
[NASA-CASE-MS-C-15158-1] c 14 N72-17325

Test apparatus for locating shorts during assembly of electrical buses  
[NASA-CASE-ARC-11116-1] c 33 N82-24420

Phase sensitive guidance sensor for wire-following vehicles  
[NASA-CASE-NPO-15341-1] c 35 N84-33769

## WOODEN STRUCTURES

Structural wood panels with improved fire resistance  
[NASA-CASE-ARC-11174-1] c 24 N81-13999

## WORDS (LANGUAGE)

Minimal logic block encoder Patent  
[NASA-CASE-NPO-10595] c 10 N71-25917

Parallel generation of the check bits of a PN sequence Patent  
[NASA-CASE-XNP-04623] c 10 N71-26103

Digital memory in which the driving of each word location is controlled by a switch core Patent  
[NASA-CASE-XNP-01466] c 10 N71-26434

## WORK HARDENING

Method of producing complex aluminum alloy parts of high temper. and products thereof  
[NASA-CASE-MS-C-19693-1] c 26 N78-24333

## WORKING FLUIDS

Heat pipe with dual working fluids  
[NASA-CASE-ARC-10198] c 34 N78-17336

Thermochemical generation of hydrogen  
[NASA-CASE-NPO-15015-1] c 25 N82-28368

Heat pipes containing alkali metal working fluid  
[NASA-CASE-LEW-12253-1] c 74 N83-19596

## WRENCHES

Methods and apparatus employing vibratory energy for wrenching Patent  
[NASA-CASE-MFS-20586] c 15 N71-17686

System for enhancing tool-exchange capabilities of a portable wrench  
[NASA-CASE-MFS-22283-1] c 37 N75-33395

Zero torque gear head wrench  
[NASA-CASE-NPO-13059-1] c 37 N76-20480

High-torque open-end wrench  
[NASA-CASE-NPO-13541-1] c 37 N79-14383

## WRIST

Wrist joint assembly  
[NASA-CASE-MFS-23311-1] c 54 N78-17676

## X

## X RAY ABSORPTION

Medical clip  
[NASA-CASE-LAR-12650-1] c 52 N84-28388

## X RAY APPARATUS

Device and method for determining X ray reflection efficiency of optical surfaces  
[NASA-CASE-MFS-20243] c 23 N73-13662

X-ray position detector  
[NASA-CASE-NPO-12087-1] c 74 N81-19898

## X RAY DIFFRACTION

Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction  
[NASA-CASE-MFS-23315-1] c 76 N78-24950

## X RAY IMAGERY

Low intensity X-ray and gamma-ray imaging device --- fiber optics  
[NASA-CASE-GSC-12263-1] c 74 N79-20857

X-ray determination of parts alignment  
[NASA-CASE-MS-C-20418-1] c 37 N83-17882

Real-time 3-D X-ray and gamma-ray viewer  
[NASA-CASE-GSC-12640-1] c 74 N84-11920

## X RAY INSPECTION

Method of determining bond quality of power transistors attached to substrates --- X ray inspection of junction microstructure  
[NASA-CASE-MFS-21931-1] c 37 N75-26372

Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction  
[NASA-CASE-MFS-23315-1] c 76 N78-24950

## X RAY IRRADIATION

Multiple environment materials test chamber having a multiple port X-ray tube for irradiating a plurality of samples Patent  
[NASA-CASE-XMS-02930] c 11 N71-23042

## X RAY SOURCES

Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765

## X RAY SPECTROSCOPY

Low intensity X-ray and gamma-ray spectrometer  
[NASA-CASE-GSC-12587-1] c 35 N82-32659

Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765

## X RAY TELESCOPES

X-ray reflection collimator adapted to focus X-radiation directly on a detector Patent  
[NASA-CASE-XHQ-04106] c 14 N70-40240

Three mirror glancing incidence system for X-ray telescope  
[NASA-CASE-MFS-21372-1] c 74 N74-27866

Method of and means for testing a glancing-incidence mirror system of an X-ray telescope  
[NASA-CASE-MFS-22409-2] c 74 N78-15880

Extended range X-ray telescope  
[NASA-CASE-MFS-25282-1] c 34 N83-19015

Spectral slicing X-ray telescope with variable magnification  
[NASA-CASE-MFS-25942-1] c 89 N84-17084

## X RAYS

Support structure for irradiated elements Patent  
[NASA-CASE-XNP-06031] c 15 N71-15606

Selective image area control of X-ray film exposure density  
[NASA-CASE-NPO-13808-1] c 35 N78-15461

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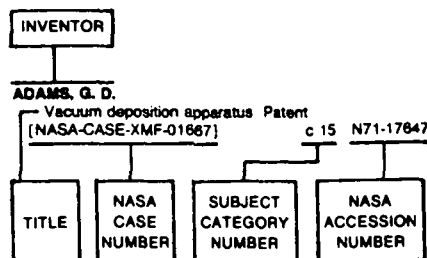
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[NASA-CASE-LEW-14057-1] c 27 N84-33595

## NASA PATENT ABSTRACTS BIBLIOGRAPHY Section 2

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**ABEL, I. R.**  
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**ABERNATHY, W. J.**  
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**ABHYANKAR, K. D.**  
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**ABSHIRE, J. B.**  
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**ACHAR, B. N.**  
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**ACORD, J. D.**  
Photosensitive device to detect bearing deviation Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089  
Space vehicle attitude control Patent  
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**ACUNA, M. H.**  
Two axis fluxgate magnetometer Patent  
[NASA-CASE-GSC-10441-1] c 14 N71-27325  
Controllable high voltage source having fast settling time  
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**ADACHI, R. R.**  
Programmable physiological infusion  
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**ADAMS, B. R.**  
Chopped molecular beam multiplexing system  
[NASA-CASE-LAR-13174-1] c 72 N84-25431

**ADAMS, C. M., JR.**  
Pretreatment method for anti-wettable materials  
[NASA-CASE-XMS-03537] c 15 N69-21471

**ADAMS, G. D.**  
Vacuum deposition apparatus Patent  
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[NASA-CASE-XMF-06065] c 15 N71-20395

**ADAMS, R. R.**  
Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311

**ADAMS, W. A.**  
High stability amplifier  
[NASA-CASE-GSC-12646-1] c 33 N83-34191  
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[NASA-CASE-GSC-12645-1] c 33 N84-16454

**ADAMSON, A. P.**  
Impact absorbing blade mounts for variable pitch blades  
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[NASA-CASE-LEW-12389-3] c 07 N79-14096

**ADAMSON, M. J.**  
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[NASA-CASE-ARC-10592-2] c 27 N76-32315

**AGRAWAL, A. K.**  
Multicomputer communication system  
[NASA-CASE-NPO-15433-1] c 62 N83-20634

**AHL, E. L., JR.**  
Latching mechanism for deployable-restowable columns  
[NASA-CASE-LAR-13169-1] c 37 N84-25063

**AIRTH, H. B., JR.**  
Regulated power supply Patent  
[NASA-CASE-XMS-01991] c 09 N71-21449

**AISENBERG, S.**  
Doppler shift system  
[NASA-CASE-HQN-10740-1] c 72 N74-19310

**AJELLO, J. M.**  
High resolution threshold photoelectron spectroscopy by electron attachment  
[NASA-CASE-NPO-14078-1] c 72 N80-14877

**AJIOKA, J. S.**  
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**AKAWIE, R. I.**  
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids  
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**AKKERMAN, J. W.**  
Reciprocating engines  
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[NASA-CASE-MSC-18807-1] c 37 N83-36483

**ALARIO, J. P.**  
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[NASA-CASE-MSC-20497-1] c 34 N84-34692

**ALBRECHT, W. P.**  
Fifth wheel  
[NASA-CASE-FRC-10081-1] c 37 N77-14477

**ALBRIGHT, C. F.**  
Water management system and an electrolytic cell therefor Patent  
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Process for separation of dissolved hydrogen from water by use of palladium and process for coating palladium with palladium black  
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**ALBUS, J. S.**  
Light sensitive digital aspect sensor Patent  
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System and method for tracking a signal source  
[NASA-CASE-HQN-10880-1] c 17 N78-17140

**ALCORN, G. E.**  
GaAs Schottky barrier photo-responsive device and method of fabrication  
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[NASA-CASE-GSC-12682-1] c 35 N84-33765

**ALDRICH, B. R.**  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332] c 05 N72-20097  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332-2] c 05 N73-25125  
General purpose rocket furnace  
[NASA-CASE-MFS-23460-1] c 12 N79-26075  
High gradient directional solidification furnace  
[NASA-CASE-MFS-25963-1] c 35 N84-16531

**ALESNA, R. E.**  
Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546

**ALEXANDER, P., JR.**  
Disconnect unit  
[NASA-CASE-NPO-11330] c 33 N73-26958

**ALFORD, W. J., JR.**  
Variable sweep wing configuration Patent  
[NASA-CASE-XLA-00230] c 02 N70-33255

**ALGER, D. L.**  
Deuterium pass through target  
[NASA-CASE-LEW-11866-1] c 72 N76-15860  
Method of forming metal hydride films  
[NASA-CASE-LEW-12083-1] c 37 N78-13436  
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[NASA-CASE-LEW-11981-1] c 31 N78-17237  
Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-2] c 34 N79-20336

**ALLCOCK, H. R.**  
Process for the preparation of polycarbonylphosphazenes  
[NASA-CASE-ARC-11176-2] c 27 N81-27271  
Carboranylchlorophosphazenes and their polymers  
[NASA-CASE-ARC-11176-1] c 27 N82-18389  
Carboranymethylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750

**ALLEN, G. V.**  
Electric welding torch Patent  
[NASA-CASE-XMF-02330] c 15 N71-23798

**ALLEN, H., JR.**  
Apparatus for igniting solid propellants Patent  
[NASA-CASE-XLE-00207] c 28 N70-33375  
Method of igniting solid propellants Patent  
[NASA-CASE-XLE-01988] c 27 N71-15634

**ALLEN, J. G., JR.**  
Lunar landing flight research vehicle Patent  
[NASA-CASE-XFR-00929] c 31 N70-34966

**ALLEN, J. H., SR.**  
Apparatus for machining geometric cones Patent  
[NASA-CASE-XMS-04292] c 15 N71-22722

**ALLEN, J. L.**  
Gravity enhanced acoustic levitation method and apparatus  
[NASA-CASE-NPO-16147-1] c 71 N84-16949

**ALLEN, L. D.**  
Method of improving heat transfer characteristics in a nucleate boiling process Patent  
[NASA-CASE-XMS-04268] c 33 N71-16277



**ALLEN, L. H.**  
Method and apparatus for aligning a laser beam projector Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125

**ALLEN, R. W.**  
Ceramic insulation for radiant heating environments and method of preparing the same Patent  
[NASA-CASE-MFS-14253] c 33 N71-24858

**ALLEN, W. K.**  
Time division multiplex system Patent  
[NASA-CASE-XGS-05918] c 07 N69-39974  
Serrordyne frequency converter re-entrant amplifier system Patent  
[NASA-CASE-XGS-01022] c 07 N71-16088  
Traffic control system and method Patent  
[NASA-CASE-GSC-10087-1] c 02 N71-19287  
Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149  
Doppler compensation by shifting transmitted object frequency within limits  
[NASA-CASE-GSC-10087-4] c 07 N73-20174

**ALLEN, W. W.**  
Analog-to-digital converter analyzing system  
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**ALLEY, V. L., JR.**  
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Nozzle extraction process and handmeter for measuring handle  
[NASA-CASE-LAR-12147-1] c 31 N79-11246

**ALLGEIER, R. K., JR.**  
Metal valve pintle with encapsulated elastomeric body Patent  
[NASA-CASE-MSC-12116-1] c 15 N71-17648

**ALPER, M. E.**  
Automated multi-level vehicle parking system  
[NASA-CASE-NPO-13058-1] c 37 N77-22480

**ALTMAN, R. L.**  
Synthesis of dawsonites  
[NASA-CASE-ARC-11326-1] c 25 N83-33977  
Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118

**ALTSCHULER, T. L.**  
Orifice gross leak tester Patent  
[NASA-CASE-ERC-10150] c 14 N71-28992

**AMBRUSO, A.**  
Gas operated actuator  
[NASA-CASE-NPO-11340] c 15 N72-33477

**AMEER, G. A.**  
Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699

**AMON, M.**  
Ritchey-Chretien Telescope  
[NASA-CASE-GSC-11487-1] c 14 N73-30393

**ANACKER, K.**  
Forming tool for ribbon or wire  
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**ANAGNOSTOU, E.**  
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**ANDERSON, D. L.**  
Static inverters which sum a plurality of waves Patent  
[NASA-CASE-XMF-00663] c 08 N71-18752

**ANDERSON, F. A.**  
Solid propellant rocket motor  
[NASA-CASE-XNP-03282] c 28 N72-20758  
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[NASA-CASE-NPO-14260-1] c 28 N79-28342

**ANDERSON, G. D.**  
Phase detector assembly Patent  
[NASA-CASE-XMF-00701] c 09 N70-40272

**ANDERSON, G. E.**  
Flexible pile thermal barrier insulator  
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**ANDERSON, J. R.**  
Method for removing oxygen impurities from cesium Patent  
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**ANDERSON, J. W.**  
Edge coating of flat wires  
[NASA-CASE-XMF-05757-1] c 31 N79-21227

**ANDERSON, K. F.**  
Pulsed excitation voltage circuit for transducers  
[NASA-CASE-FRC-10036] c 09 N72-22200

**ANDERSON, L. M.**  
Inelastic tunnel diodes  
[NASA-CASE-LEW-13833-1] c 33 N83-25983  
Solar energy converter using surface plasma waves  
[NASA-CASE-LEW-13827-1] c 44 N83-26258

**ANDERSON, R. A.**  
Sandwich panel construction Patent  
[NASA-CASE-XLA-00349] c 33 N70-37979

**ANDERSON, R. E.**  
Automatic transponder  
[NASA-CASE-GSC-12075-1] c 32 N77-31350

**ANDERSON, R. F.**  
Piezoelectric pump Patent  
[NASA-CASE-XNP-05429] c 26 N71-21824

**ANDERSON, T. O.**  
Binary number sorter Patent  
[NASA-CASE-NPO-10112] c 08 N71-12502  
Ranging system Patent  
[NASA-CASE-NPO-10068] c 09 N71-18598  
Data compression processor Patent  
[NASA-CASE-NPO-10068] c 08 N71-19288  
Data compressor Patent  
[NASA-CASE-XNP-04067] c 08 N71-22707  
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[NASA-CASE-XNP-02748] c 08 N71-22749  
Comparator for the comparison of two binary numbers Patent  
[NASA-CASE-XNP-04819] c 08 N71-23295  
Digital synchronizer Patent  
[NASA-CASE-NPO-10851] c 07 N71-24613  
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[NASA-CASE-NPO-10118] c 07 N71-24741  
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[NASA-CASE-XNP-04623] c 10 N71-26103  
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[NASA-CASE-NPO-10214] c 10 N71-26577  
Digital filter for reducing sampling jitter in digital control systems Patent  
[NASA-CASE-NPO-11088] c 08 N71-29034  
Encoder/decoder system for a rapidly synchronizable binary code Patent  
[NASA-CASE-NPO-10342] c 10 N71-33407  
Modular encoder  
[NASA-CASE-NPO-10629] c 08 N72-18184  
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Digital quasi-exponential function generator  
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[NASA-CASE-NPO-10636] c 08 N72-25210  
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Asynchronous, multiplexing, single line transmission and recovery data system  
[NASA-CASE-NPO-13321-1] c 32 N75-26195  
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[NASA-CASE-NPO-14554-1] c 60 N81-27814  
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**ANDERSON, W. J.**  
Method of improving the reliability of a rolling element system Patent  
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High speed rolling element bearing  
[NASA-CASE-LEW-10858-1] c 15 N72-22490  
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Thrust bearing  
[NASA-CASE-LEW-11949-1] c 37 N76-29588

**ANDERSON, W. W.**  
Annular momentum control device used for stabilization of space vehicles and the like  
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[NASA-CASE-LAR-11889-1] c 35 N79-26372  
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[NASA-CASE-LAR-12052-1] c 18 N81-29152

**ANDERSON, W. W., JR.**  
Compensating radiometer  
[NASA-CASE-XLA-04556] c 14 N69-27484  
Semi-linear ball bearing Patent  
[NASA-CASE-XLA-02809] c 15 N71-22982

**ANDREWS, D. G.**  
Slotted variable camber flap  
[NASA-CASE-LAR-12541-1] c 05 N84-22551

**ANDREWS, E. H., JR.**  
Method of obtaining permanent record of surface flow phenomena Patent  
[NASA-CASE-XLA-01353] c 14 N70-41366

**ANDREWS, R. E.**  
Inverter ratio failure detector  
[NASA-CASE-NPO-13160-1] c 35 N74-18090

**ANDREWS, T. W.**  
Adjustable support  
[NASA-CASE-NPO-10721] c 15 N72-27484

System and method for moving a probe to follow movements of tissue  
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**ANGELE, W.**  
Electrical connector for flat cables Patent  
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Instrument support with precise lateral adjustment Patent  
[NASA-CASE-XMF-00480] c 14 N70-39898  
Support apparatus for dynamic testing Patent  
[NASA-CASE-XMF-01772] c 11 N70-41677  
Method of making a molded connector Patent  
[NASA-CASE-XMF-03498] c 15 N71-15986  
Method of making shielded flat cable Patent  
[NASA-CASE-MFS-13687] c 09 N71-28691  
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[NASA-CASE-MFS-13687-2] c 09 N72-22198  
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[NASA-CASE-MFS-20757] c 09 N72-28225  
Cryogenic gyroscope housing  
[NASA-CASE-MFS-21136-1] c 35 N74-18323

**ANGULO, E. D.**  
Apparatus for disintegrating kidney stones  
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**ANICICH, V. G.**  
Miniature cyclotron resonance ion source using small permanent magnet  
[NASA-CASE-NPO-14324-1] c 72 N80-27163

**ANSELMO, V. J.**  
Medical diagnosis system and method with multispectral imaging  
[NASA-CASE-NPO-14402-1] c 52 N81-27783

**APPEL, M. A.**  
Propellant tank pressurization system Patent  
[NASA-CASE-XNP-00650] c 27 N71-28929

**APPLEBERRY, W. T.**  
Device for measuring tensile forces  
[NASA-CASE-MFS-21728-1] c 35 N74-27865  
Device for use in loading tension members  
[NASA-CASE-MFS-21488-1] c 14 N75-24794  
Mechanical sequencer  
[NASA-CASE-MSC-19536-1] c 37 N77-22482  
Load regulating latch  
[NASA-CASE-MSC-19535-1] c 37 N77-32499  
Sequencing device utilizing planetary gear set  
[NASA-CASE-MSC-19514-1] c 37 N79-20377

**APPLER, R. L.**  
Method for generating ultra-precise angles Patent  
[NASA-CASE-XGS-04173] c 19 N71-26674

**APPLETON, M. W.**  
Omnidirectional slot antenna for mounting on cylindrical space vehicle  
[NASA-CASE-LAR-10163-1] c 09 N72-25247

**ARCAND, G. M.**  
Method for determining the state of charge of batteries by the use of tracers Patent  
[NASA-CASE-XNP-01464] c 03 N71-10728

**ARCELLA, F. G.**  
Method of forming a wick for a heat pipe  
[NASA-CASE-NPO-13391-1] c 34 N76-27515  
Bimetallic junctions  
[NASA-CASE-LEW-11573-1] c 26 N77-28265

**ARENS, W. E.**  
Charge-coupled device data processor for an airborne imaging radar system  
[NASA-CASE-NPO-13587-1] c 32 N77-32342  
Azimuth correlator for real-time synthetic aperture radar image processing  
[NASA-CASE-NPO-14019-1] c 32 N79-14268

**ARGOUD, M. J.**  
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[NASA-CASE-NPO-13707-1] c 74 N77-28933  
Protective telescoping shield for solar concentrator  
[NASA-CASE-NPO-16238-1] c 44 N84-25164

**ARIAS, A.**  
Apparatus for positioning and loading a test specimen Patent  
[NASA-CASE-XLE-01300] c 15 N70-41993  
Thermal shock apparatus Patent  
[NASA-CASE-XLE-02024] c 14 N71-22964  
Production of metal powders  
[NASA-CASE-XLE-06461] c 17 N72-22530  
Method for producing dispersion strengthened alloys by converting metal to a halide, comminuting, reducing the metal halide to the metal and sintering  
[NASA-CASE-LEW-10450-1] c 15 N72-25448  
Apparatus for producing metal powders  
[NASA-CASE-XLE-06461-2] c 17 N72-28535

**ARLINE, S. B.**  
Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N79-33468

**ARMSTRONG, H. T.**  
Coupling for linear shaped charge Patent  
[NASA-CASE-XLA-00189] c 33 N70-36846

- ARNDT, G. D.**  
System for improving signal-to-noise ratio of a communication signal Patent Application [NASA-CASE-MSC-12259-1] c 07 N70-12616  
System for improving signal-to-noise ratio of a communication signal [NASA-CASE-MSC-12259-2] c 07 N72-33146
- ARONS, I. J.**  
Heat resistant protective hand covering [NASA-CASE-MSC-20261-2] c 54 N84-23113  
Heat resistant protective hand covering [NASA-CASE-MSC-20261-1] c 54 N84-28484
- ARRANCE, F. C.**  
Method of making membranes [NASA-CASE-XNP-04264] c 03 N69-21337
- ASHBROOK, R. L.**  
High temperature cobalt-base alloy Patent [NASA-CASE-XLE-00726] c 17 N71-15644  
High temperature cobalt-base alloy Patent [NASA-CASE-XLE-02991] c 17 N71-16025  
High temperature ferromagnetic cobalt-base alloy Patent [NASA-CASE-XLE-03629] c 17 N71-23248  
Method of forming superalloys [NASA-CASE-LEW-10805-1] c 15 N73-13465  
Method of heat treating a formed powder product material [NASA-CASE-LEW-10805-3] c 26 N74-10521  
Method of forming articles of manufacture from superalloy powders [NASA-CASE-LEW-10805-2] c 37 N74-13179
- ASHWORTH, B. R.**  
Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot [NASA-CASE-LAR-10550-1] c 09 N74-30597  
Seat cushion to provide realistic acceleration cues to aircraft simulator pilot [NASA-CASE-LAR-12149-2] c 09 N79-31228  
Helmet weight simulator [NASA-CASE-LAR-12320-1] c 54 N81-27806
- ASKINS, B. S.**  
Method of obtaining intensified image from developed photographic films and plates [NASA-CASE-MFS-23461-1] c 35 N79-10389
- ASTHEIMER, R. W.**  
Multi-lobar scan horizon sensor Patent [NASA-CASE-XGS-00809] c 21 N70-35427
- ASTON, G.**  
Ion beam accelerator system [NASA-CASE-NPO-15547-1] c 72 N84-16959  
Hollow cathode apparatus [NASA-CASE-NPO-15560-1] c 75 N84-16993
- ATKISSON, E. A.**  
Apparatus having coaxial capacitor structure for measuring fluid density Patent [NASA-CASE-XLE-00143] c 14 N70-36618
- AUBLE, C. M.**  
Instrument for the quantitative measurement of radiation at multiple wave lengths Patent [NASA-CASE-XLE-00011] c 14 N70-41946
- AUER, S. O.**  
Cosmic dust or other similar outer space particles impact location detector [NASA-CASE-GSC-11291-1] c 25 N72-33696  
Micrometeoroid analyzer [NASA-CASE-ARC-10443-1] c 14 N73-20477  
Impact position detector for outer space particles [NASA-CASE-GSC-11829-1] c 35 N75-27331  
Micrometeoroid velocity and trajectory analyzer [NASA-CASE-GSC-11892-1] c 35 N76-15433  
Moving particle composition analyzer [NASA-CASE-GSC-11889-1] c 35 N76-16393  
Remote sensing of vegetation and soil using microwave ellipsometry [NASA-CASE-GSC-11976-1] c 43 N78-10529
- AUKER, B. H.**  
Refractory porcelain enamel passive control coating for high temperature alloys [NASA-CASE-MFS-22324-1] c 27 N75-27160
- AUSTIN, I. G.**  
Water separator [NASA-CASE-XMS-01295-1] c 37 N79-21345
- AUSTIN, W. E.**  
Compton scatter attenuation gamma ray spectrometer [NASA-CASE-MFS-21441-1] c 14 N73-30392
- AVERILL, R. D.**  
Vibration isolation and pressure compensation apparatus for sensitive instrumentation [NASA-CASE-LAR-12728-1] c 35 N83-32026
- AVIZIENIS, A. A.**  
Self-testing and repairing computer Patent [NASA-CASE-NPO-10567] c 08 N71-24633
- AYLWARD, J. R.**  
Cell and method for electrolysis of water and anode [NASA-CASE-MSC-16394-1] c 28 N81-24280
- AYVAZIAN, R. A.**  
Laminar flow enhancement Patent [NASA-CASE-NPO-10122] c 12 N71-17631  
Propellant mass distribution metering apparatus Patent [NASA-CASE-NPO-10185] c 10 N71-26339
- B**
- BABA, P. D.**  
Method for making conductors for ferrite memory arrays [NASA-CASE-LAR-10994-1] c 24 N75-13032
- BABB, B. D.**  
Method and apparatus for cryogenic wire stripping Patent [NASA-CASE-MFS-10340] c 15 N71-17628  
Self-balancing strain gage transducer Patent [NASA-CASE-MFS-12827] c 14 N71-17656
- BABECKI, A. J.**  
Peen plating [NASA-CASE-GSC-11163-1] c 15 N73-32360
- BACCHI, R.**  
Valve actuator Patent [NASA-CASE-XHQ-01208] c 15 N70-35409
- BACHLE, W. H.**  
Mechanically extendible telescoping boom [NASA-CASE-NPO-11118] c 03 N72-25021
- BACON, J. F.**  
Glass compositions with a high modulus of elasticity [NASA-CASE-HQN-10274-1] c 27 N82-29451  
High modulus invert analog glass compositions containing beryllia [NASA-CASE-HQN-10931-2] c 27 N82-29452  
Non-toxic invert analog glass compositions of high modulus [NASA-CASE-HQN-10328-2] c 27 N82-29454  
High modulus rare earth and beryllium containing silicate glass compositions [NASA-CASE-HQN-10595-1] c 27 N82-29455
- BADIN, F. E.**  
Space simulation and radiative property testing system and method Patent [NASA-CASE-MFS-20096] c 14 N71-30028
- BAEHR, E. F.**  
Channel-type shell construction for rocket engines and the like Patent [NASA-CASE-XLE-00144] c 28 N70-34860  
Rocket thrust chamber Patent [NASA-CASE-XLE-00145] c 28 N70-36806  
Method of making a regeneratively cooled combustion chamber Patent [NASA-CASE-XLE-00150] c 28 N70-41818  
Method of making a rocket motor casing Patent [NASA-CASE-XLE-00409] c 28 N71-15658  
Rocket motor casing Patent [NASA-CASE-XLE-05689] c 28 N71-15659  
Ophthalmic liquifaction pump [NASA-CASE-LEW-12051-1] c 52 N75-33640  
Corneal seal device [NASA-CASE-LEW-12258-1] c 52 N77-28716  
Tissue macerating instrument [NASA-CASE-LEW-12668-1] c 52 N78-14773  
Flow compensating pressure regulator [NASA-CASE-LEW-12718-1] c 34 N78-25351  
Intra-ocular pressure normalization technique and equipment [NASA-CASE-LEW-12955-1] c 52 N80-14684
- BAER, D. A.**  
Synchronous orbit battery cycler [NASA-CASE-GSC-11211-1] c 03 N72-25020
- BAGANOFF, D.**  
Means for controlling rupture of shock tube diaphragms Patent [NASA-CASE-XAC-00731] c 11 N71-15960
- BAGBY, J. P.**  
Thermally operated valve Patent [NASA-CASE-XLE-00815] c 15 N70-35407
- BAHMAN, H.**  
Self-erecting reflector Patent [NASA-CASE-XGS-09190] c 31 N71-16102  
Belt for transmitting power from a cogged driving member to a cogged driven member [NASA-CASE-GSC-12289-1] c 37 N80-32717  
Unidirectional flexural pivot [NASA-CASE-GSC-12622-1] c 37 N84-12492
- BAHM, E. J.**  
A dc servosystem including an ac motor Patent [NASA-CASE-NPO-10700] c 07 N71-33613
- BAILEY, C. L., JR.**  
Solid state controller three axes controller [NASA-CASE-MSC-12394-1] c 08 N74-10942
- BAILEY, D. A.**  
Adaptive control system for line-commutated inverters [NASA-CASE-MFS-25209-1] c 33 N83-35227
- BAILEY, F. J., JR.**  
Airplane take-off performance indicator Patent [NASA-CASE-XLA-00100] c 14 N70-36807
- BAILEY, G. A.**  
Magnetic matrix memory system Patent [NASA-CASE-XMF-05835] c 08 N71-12504
- BAILEY, G. C.**  
Integrating IR detector imaging systems [NASA-CASE-NPO-15805-1] c 74 N84-28590
- BAILEY, J. W.**  
Bi-polar phase detector and corrector for split phase PCM data signals Patent [NASA-CASE-XGS-01590] c 07 N71-12392  
Radio frequency coaxial high pass filter Patent [NASA-CASE-XGS-01148] c 09 N71-23573  
Explosively activated egress area [NASA-CASE-LAR-12624-1] c 01 N83-35992
- BAILEY, M. C.**  
Stacked array of omnidirectional antennas [NASA-CASE-LAR-10545-1] c 09 N72-21244
- BAILEY, R. L.**  
Apparatus and method for protecting a photographic device Patent [NASA-CASE-NPO-10174] c 14 N71-18465  
Solid propellant rocket motor nozzle [NASA-CASE-NPO-11458] c 28 N72-23810  
Electromagnetic wave energy converter [NASA-CASE-GSC-11394-1] c 09 N73-32109
- BAKER, C. D.**  
Coating process [NASA-CASE-XNP-06508] c 18 N69-39895  
Electrical spot terminal assembly Patent [NASA-CASE-NPO-10034] c 15 N71-17685  
Electrical connector [NASA-CASE-NPO-10694] c 09 N72-20200  
Pressure transducer [NASA-CASE-NPO-10832] c 14 N72-21405
- BAKER, E. H.**  
Centrifuge mounted motion simulator Patent [NASA-CASE-XAC-00399] c 11 N70-34815
- BAKER, G. J.**  
Air speed and attitude probe [NASA-CASE-FRC-11009-1] c 06 N80-18036
- BAKER, J. T.**  
Logic-controlled occlusive cuff system [NASA-CASE-MSC-14836-1] c 52 N82-11770
- BAKER, M. E.**  
Omnidirectional joint Patent [NASA-CASE-XMS-09635] c 05 N71-24623
- BAKER, R. L.**  
Bidirectional step torque filter with zero backlash characteristic Patent [NASA-CASE-XGS-04227] c 15 N71-21744
- BAKER, V. D.**  
Vapor pressure measuring system and method Patent [NASA-CASE-XMS-01618] c 14 N71-20741
- BAKSTON, B.**  
Apparatus for the determination of the existence or non-existence of a bonding between two members Patent [NASA-CASE-MFS-13686] c 15 N71-18132
- BALASUBRAHMANYAN, V. K.**  
Cerenkov radiator material and charged particle detection process [NASA-CASE-GSC-12805-1] c 72 N83-18423
- BALDWIN, L. V.**  
Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent [NASA-CASE-XLE-00243] c 14 N70-38602  
Apparatus for increasing ion engine beam density Patent [NASA-CASE-XLE-00519] c 28 N70-41576
- BALES, T. T.**  
Controlled glass bead peening Patent [NASA-CASE-XLA-07390] c 15 N71-18616  
Metal matrix composite structural panel construction [NASA-CASE-LAR-12807-1] c 24 N84-11214  
Curved cap corrugated sheet [NASA-CASE-LAR-12884-1] c 18 N84-33450
- BALLANTINE, T. J.**  
A method and technique for installing light-weight fragile, high-temperature fiber insulation [NASA-CASE-MSC-18934-3] c 24 N82-26387
- BALLARD, R. R.**  
Two-axis controller Patent [NASA-CASE-XFR-04104] c 03 N70-42073
- BALLENTINE, F. M., JR.**  
Foam generator Patent [NASA-CASE-XLA-00838] c 03 N70-36778
- BALLOU, E. V.**  
Process for the preparation of calcium superoxide [NASA-CASE-ARC-11053-1] c 25 N79-10162  
Use of glow discharge in fluidized beds [NASA-CASE-ARC-11245-1] c 28 N82-18401

## BAMFORD, R. M.

- Elastic universal joint Patent  
[NASA-CASE-XNP-00416] c 15 N70-36947
- Sealed separable connection Patent  
[NASA-CASE-NPO-10064] c 15 N71-17693

## BANDINI, U.

- Out of tolerance warning alarm system for plurality of monitored circuits Patent  
[NASA-CASE-XMS-10984-1] c 10 N71-19417

## BANK, H.

- Gas diffusion liquid storage bag and method of use for storing blood  
[NASA-CASE-NPO-13930-1] c 52 N79-14749

## BANKS, B.

- Piezoelectric deicing device  
[NASA-CASE-LEW-13773-2] c 35 N84-32782

## BANKS, B. A.

- Ion beam deflector Patent  
[NASA-CASE-LEW-10689-1] c 28 N71-26173
- Ion thruster accelerator system Patent  
[NASA-CASE-LEW-10106-1] c 28 N71-26842
- Process for glass coating an ion accelerator grid Patent  
[NASA-CASE-LEW-10278-1] c 15 N71-28582
- Ion thruster magnetic field control  
[NASA-CASE-LEW-10835-1] c 28 N72-22771
- Electromagnetic flow rate meter  
[NASA-CASE-LEW-10981-1] c 35 N74-21018
- Sputtering holes with ion beamlets  
[NASA-CASE-LEW-11646-1] c 20 N74-31269
- Method of making dished ion thruster grids  
[NASA-CASE-LEW-11694-1] c 20 N75-18310
- Apparatus for forming dished ion thruster grids  
[NASA-CASE-LEW-11694-2] c 37 N76-14461
- Method of constructing dished ion thruster grids to provide hole array spacing compensation  
[NASA-CASE-LEW-11876-1] c 20 N76-21276
- Anode for ion thruster  
[NASA-CASE-LEW-12048-1] c 20 N77-20162
- Texturing polymer surfaces by transfer casting  
[NASA-CASE-LEW-13120-1] c 27 N82-28440
- Surface texturing of fluoropolymers  
[NASA-CASE-LEW-13028-1] c 27 N82-33521
- Mechanical bonding of metal method  
[NASA-CASE-LEW-12941-1] c 26 N83-10170
- Ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-1] c 52 N83-21785
- Diamondlike flake composites  
[NASA-CASE-LEW-13837-1] c 24 N84-22695
- Diamondlike flakes  
[NASA-CASE-LEW-13837-2] c 24 N84-22696
- Method of making an ion beam sputter-etched ventricular catheter for hydrocephalus shunt  
[NASA-CASE-LEW-13107-2] c 52 N84-23095
- Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28988
- BANKSTON, B. F.**
- Device for measuring the ferrite content in an austenitic stainless-steel weld  
[NASA-CASE-MFS-22907-1] c 26 N76-18257
- Apparatus and method for inspecting a bearing ball  
[NASA-CASE-MFS-25833-1] c 35 N83-21316
- Two-dimensional scanner apparatus  
[NASA-CASE-MFS-25687-1] c 35 N84-22928
- BANTA, R. D.**
- Positive contact resistance soldering unit  
[NASA-CASE-KSC-10242] c 15 N72-23497
- BARACK, W. N.**
- Redundant disc  
[NASA-CASE-LEW-12496-1] c 07 N78-33101
- BARAONA, C. R.**
- Screen printed interdigitated back contact solar cell  
[NASA-CASE-LEW-13414-1] c 44 N83-20374
- BARBEE, T. H.**
- X-ray imaging mirror system and method of producing the same  
[NASA-CASE-NPO-15828-1] c 74 N83-30222
- BARBER, J. B.**
- Laser grating interferometer Patent  
[NASA-CASE-XLA-04295] c 16 N71-24170
- BARBERA, A. J.**
- Use of unilluminated solar cells as shunt diodes for a solar array  
[NASA-CASE-GSC-10344-1] c 03 N72-27053
- BARGER, R. L.**
- Continuously operating induction plasma accelerator Patent  
[NASA-CASE-XLA-01354] c 25 N70-36946
- BARISH, B.**
- Pulsed energy power system Patent  
[NASA-CASE-MSC-13112] c 03 N71-11057
- BARKER, P.**
- Vibrophonocardiograph Patent  
[NASA-CASE-XFR-07172] c 05 N71-27234

## BARMATZ, M. B.

- Acoustic levitation methods and apparatus  
[NASA-CASE-NPO-15562-1] c 71 N82-27086
- Acoustic agglomeration methods and apparatus  
[NASA-CASE-NPO-15466-1] c 71 N82-27087
- Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112
- Acoustic system for material transport  
[NASA-CASE-NPO-15453-1] c 71 N83-32515
- System for controlled acoustic rotation of objects  
[NASA-CASE-NPO-15522-1] c 71 N83-32516
- High temperature acoustic levitator  
[NASA-CASE-NPO-16022-1] c 71 N83-36847
- Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948
- Gravity enhanced acoustic levitation method and apparatus  
[NASA-CASE-NPO-16147-1] c 71 N84-16949
- BARNES, J. R.**
- Self-calibrating threshold detector  
[NASA-CASE-MSC-16370-1] c 35 N81-19427
- BARNES, P. E.**
- Cam-operated pitch-change apparatus  
[NASA-CASE-LEW-13050-1] c 07 N79-14095
- BARNETT, J. H., JR.**
- Life raft stabilizer  
[NASA-CASE-MSC-12393-1] c 02 N73-26006
- BARNETT, M. A.**
- Furlable antenna  
[NASA-CASE-NPO-13553-1] c 33 N76-32457
- BARNISKIS, W. A.**
- Bus voltage compensation circuit for controlling direct current motor  
[NASA-CASE-XMS-04215-1] c 09 N69-39987
- BARNIS, C. E.**
- High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272
- BARR, T. A.**
- Thickness measurement system  
[NASA-CASE-MFS-23721-1] c 31 N79-28370
- BARRETT, C. A.**
- Nical ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505
- Improved nickel base coating alloy  
[NASA-CASE-LEW-13834-1] c 26 N83-24639
- BARRETT, T. W.**
- Personal propulsion unit Patent  
[NASA-CASE-MFS-20130] c 28 N71-27585
- BARRINGTON, A. B.**
- Sorption vacuum trap Patent  
[NASA-CASE-XER-09519] c 14 N71-18483
- BARRINGTON, A. E.**
- Leak detector wherein a probe is monitored with ultraviolet radiation Patent  
[NASA-CASE-ERC-10034] c 15 N71-24896
- Field ionization electrodes Patent  
[NASA-CASE-ERC-10013] c 09 N71-26678
- Ion microprobe mass spectrometer for analyzing fluid materials Patent  
[NASA-CASE-ERC-10014] c 14 N71-28863
- Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent  
[NASA-CASE-XER-11203] c 14 N71-28994
- BARTERA, R. E.**
- Indicator providing continuous indication of the presence of a specific pollutant in air  
[NASA-CASE-NPO-13474-1] c 45 N76-21742
- Arc control in compact arc lamps  
[NASA-CASE-NPO-10870-1] c 33 N77-22386
- Multiple anode arc lamp system  
[NASA-CASE-NPO-10857-1] c 33 N80-14330
- BARTHOLOME, D. E.**
- Space suit pressure stabilizer Patent  
[NASA-CASE-XLA-05332] c 05 N71-11194
- Equipotential space suit Patent  
[NASA-CASE-LAR-10007-1] c 05 N71-11195
- Therapeutic hand exerciser  
[NASA-CASE-LAR-11667-1] c 52 N76-19785
- Collapsible corrugated horn antenna  
[NASA-CASE-LAR-11745-1] c 32 N80-29539
- BARZA, M. J.**
- Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794
- Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N79-14750
- BASIULIS, A.**
- Method and apparatus for distillation of liquids Patent  
[NASA-CASE-XNP-08124] c 15 N71-27184
- Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948
- Method for distillation of liquids  
[NASA-CASE-XNP-08124-2] c 06 N73-13129

## BASIULIS, D. I.

- High performance filletting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490
- High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523
- BASS, A. M.**
- Ultraviolet resonance lamp Patent  
[NASA-CASE-ARC-10030] c 09 N71-12521
- Ultraviolet atomic emission detector  
[NASA-CASE-HGN-10756-1] c 14 N72-25428
- BASTIEN, G. J.**
- Fluid flow restrictor Patent  
[NASA-CASE-NPO-10117] c 15 N71-15608
- BATE, E. R., JR.**
- Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730
- BATES, H. E.**
- Segmenting lead telluride-silicon germanium thermoelements Patent  
[NASA-CASE-XGS-05718] c 26 N71-16037
- BATHKER, D. A.**
- Dual frequency microwave reflex feed  
[NASA-CASE-NPO-13091-1] c 09 N73-12214
- Antenna feed system for receiving circular polarization and transmitting linear polarization  
[NASA-CASE-NPO-14382-1] c 32 N80-16261
- BATSCH, F. F.**
- Attitude control for spacecraft Patent  
[NASA-CASE-XNP-00294] c 21 N70-36938
- Silt regulated gas journal bearing Patent  
[NASA-CASE-XNP-00476] c 15 N70-38620
- BATTE, W. G.**
- Exclusive-Or digital logic module Patent  
[NASA-CASE-XLA-07732] c 08 N71-18751
- BATTEN, C. E.**
- Visible and infrared polarization ratio spectrophotometer  
[NASA-CASE-LAR-12285-1] c 35 N80-28687
- BATTERSON, S. A.**
- Runway light Patent  
[NASA-CASE-XLA-00119] c 11 N70-33329
- BATTS, C. N.**
- Contour surveying system Patent  
[NASA-CASE-XLA-08646] c 14 N71-17586
- BAUCOM, R. M.**
- Extensometer frame  
[NASA-CASE-XLA-10322] c 15 N72-17452
- Medical clip  
[NASA-CASE-LAR-12650-1] c 52 N84-28388
- Process of making medical clip  
[NASA-CASE-LAR-12650-2] c 52 N84-28389
- BAUER, H. B.**
- Air conditioning system and component therefore distributing air flow from opposite directions  
[NASA-CASE-GSC-11445-1] c 31 N74-27902
- BAUERNSCHUB, J. P., JR.**
- Folding boom assembly Patent  
[NASA-CASE-XGS-00938] c 32 N70-41367
- Nonmagnetic, explosive actuated indexing device Patent  
[NASA-CASE-XGS-02422] c 15 N71-21529
- BAUGH, B. T.**
- Precision manipulator heating and cooling apparatus for use in UHV systems with sample transfer capability  
[NASA-CASE-LAR-13040-1] c 35 N84-29191
- BAUGHMAN, J. R.**
- Observation window for a gas confining chamber  
[NASA-CASE-NPO-10890] c 11 N73-12265
- Droplet monitoring probe  
[NASA-CASE-NPO-10985] c 14 N73-20476
- BAUMAN, A. J.**
- Solder flux which leaves corrosion-resistant coating Patent  
[NASA-CASE-XNP-03459-2] c 18 N71-15688
- Soldering with solder flux which leaves corrosion resistant coating Patent  
[NASA-CASE-XNP-03459] c 15 N71-21078
- Fluid impervious barrier including liquid metal alloy and method of making same Patent  
[NASA-CASE-NPO-08881] c 17 N71-28747
- Molten salt pyrolysis of latex  
[NASA-CASE-NPO-14315-1] c 27 N81-17261
- BAUMER, W. E.**
- Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137
- BAXTER, R. D.**
- Heat flux measuring system Patent  
[NASA-CASE-XFR-03802] c 33 N71-23085
- BAYLESS, G. B.**
- Line hook with loop expander  
[NASA-CASE-LAR-12875-1] c 37 N83-20156
- BEALE, H. A.**
- Hall effect magnetometer  
[NASA-CASE-LEW-11632-2] c 35 N75-13213

- BEAM, B. H.**  
Thermoelectric radiometer utilizing polymer film  
[NASA-CASE-ARC-10138-1] c 14 N72-24477
- BEAM, R. A.**  
Optical projector system Patent  
[NASA-CASE-XNP-03853] c 23 N71-21882
- BEAM, R. M.**  
Solid medium thermal engine  
[NASA-CASE-ARC-10461-1] c 44 N74-33379
- BEASLEY, R. M.**  
Two-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-1] c 27 N76-22377  
Three-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-2] c 27 N76-23426
- BEASLEY, W. D.**  
Continuously operating induction plasma accelerator  
Patent  
[NASA-CASE-XLA-01354] c 25 N70-36946
- BEATTY, R. W.**  
Rotary vane attenuator wherein rotor has orthogonally disposed resistive and dielectric cards  
[NASA-CASE-NPO-11418-1] c 14 N73-13420
- BEAUREGARD, W. W.**  
Water separating system Patent  
[NASA-CASE-XMS-13052] c 14 N71-20427
- BECK, A. F.**  
Small plasma probe Patent  
[NASA-CASE-XLE-02578] c 25 N71-20747
- BECK, T. R.**  
Method of inhibiting stress corrosion cracks in titanium alloys Patent  
[NASA-CASE-NPO-10271] c 17 N71-16393
- BECKER, R. A.**  
Photoelectric energy spectrometer Patent  
[NASA-CASE-XNP-04161] c 14 N71-15599
- BECKERLE, L. D.**  
Heat shield oven  
[NASA-CASE-XMS-04318] c 15 N69-27871
- BECKMAN, P.**  
Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases  
[NASA-CASE-XLE-00690] c 25 N69-39884
- BECKWITH, I. E.**  
Sound shield  
[NASA-CASE-LAR-12883-1] c 71 N83-17235
- BECKWITH, R. M.**  
Mechanical coordinate converter Patent  
[NASA-CASE-XNP-00614] c 14 N70-36907
- BEEHM, J. M.**  
Optical tracking mount Patent  
[NASA-CASE-MFS-14017] c 14 N71-26627
- BEEKMAN, S. W.**  
Redundant disc  
[NASA-CASE-LEW-12496-1] c 07 N78-33101
- BEEN, J. F.**  
Method and apparatus for measuring electromagnetic radiation  
[NASA-CASE-LEW-11159-1] c 14 N73-28488
- BEER, R.**  
Cooled echelle grating spectrometer  
[NASA-CASE-NPO-14372-1] c 35 N80-26635
- BEHMER, H.**  
High-torque open-end wrench  
[NASA-CASE-NPO-13541-1] c 37 N79-14383
- BEHM, J. W.**  
Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784
- BEITLER, R. S.**  
Integrated control system for a gas turbine engine  
[NASA-CASE-LEW-12594-2] c 07 N81-19116  
Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31603
- BEJCZY, A. K.**  
Terminal guidance sensor system  
[NASA-CASE-NPO-14521-1] c 54 N79-20746  
Terminal guidance sensor system  
[NASA-CASE-NPO-14521-1] c 37 N81-27519  
Optical fiber tactile sensor  
[NASA-CASE-NPO-15375-1] c 74 N84-11921
- BELANGER, R. J.**  
Fluid lubricant system Patent  
[NASA-CASE-XNP-03972] c 15 N71-23048
- BELASCO, N.**  
Medical subject monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757
- BELCHER, J. G., JR.**  
Liquid immersion apparatus for minute articles  
[NASA-CASE-MFS-25363-1] c 37 N82-12441
- BELEW, H. W., JR.**  
Altitude simulation chamber for rocket engine testing  
[NASA-CASE-MFS-20620] c 11 N72-27262
- BELEW, R. R.**  
Thermal compensating structural member  
[NASA-CASE-MFS-20433] c 15 N72-28496
- Docking structure for spacecraft  
[NASA-CASE-MFS-20863] c 31 N73-26876
- Emergency descent device  
[NASA-CASE-MFS-23074-1] c 54 N77-21844
- Biocentrifuge system capable of exchanging specimen cages while in operational mode  
[NASA-CASE-MFS-23825-1] c 51 N81-32829
- Electrical rotary joint apparatus for large space structures  
[NASA-CASE-MFS-23981-1] c 07 N83-20944  
Variable length strut with longitudinal compliance and locking capability  
[NASA-CASE-MFS-25907-1] c 37 N83-31019
- BELL, A.**  
Process for preparing higher oxides of the alkali and alkaline earth metals  
[NASA-CASE-ARC-10992-1] c 26 N78-32229
- BELL, C. H.**  
Fiber optic multiplex optical transmission system  
[NASA-CASE-KSC-11047-1] c 74 N78-14889  
Fiber optic crossbar switch for automatically patching optical signals  
[NASA-CASE-KSC-11104-1] c 74 N83-29032
- BELL, D., III**  
Heated element fluid flow sensor Patent  
[NASA-CASE-MSC-12084-1] c 12 N71-17569
- BELL, V. L.**  
Polyimide adhesives  
[NASA-CASE-LAR-11397-1] c 27 N75-29263  
Polyimide adhesives  
[NASA-CASE-LAR-12181-1] c 27 N78-17205  
Process for preparing thermoplastic aromatic polyimides  
[NASA-CASE-LAR-11828-1] c 27 N78-32261
- BELL, V. L., JR.**  
Process for interfacial polymerization of pyromellitic dianhydride and 1,2,4, 5-tetraamino-benzene Patent  
[NASA-CASE-XLA-03104] c 06 N71-11235  
Imidazopyrrolone/imide copolymers Patent  
[NASA-CASE-XLA-08802] c 06 N71-11238  
Dosimeter for high levels of absorbed radiation  
Patent  
[NASA-CASE-XLA-03645] c 14 N71-20430
- BELLAVIA, J., JR.**  
Thermal barrier pressure seal  
[NASA-CASE-MSC-18134-1] c 37 N81-15363
- BELLMAN, D. R.**  
Skin friction measuring device for aircraft  
[NASA-CASE-FRC-11029-1] c 06 N81-17057
- BELT, J. L.**  
Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310
- BEMENT, L. J.**  
Linear explosive comparison  
[NASA-CASE-LAR-10800-1] c 33 N72-27959  
Totally confined explosive welding  
[NASA-CASE-LAR-10841-1] c 37 N74-21057  
Method of making an explosively welded scarf joint  
[NASA-CASE-LAR-11211-1] c 37 N75-12326  
Totally confined explosive welding  
[NASA-CASE-LAR-10841-2] c 37 N79-13364  
Explosively activated egress area  
[NASA-CASE-LAR-12624-1] c 01 N83-35992
- BENEDICT, R. D.**  
Transient augmentation circuit for pulse amplifiers  
Patent  
[NASA-CASE-XNP-01068] c 10 N71-28739
- BENEDICTO, J. S. J.**  
Method and apparatus for slicing crystals  
[NASA-CASE-GSC-12291-1] c 76 N80-18951  
Crystal cleaving machine  
[NASA-CASE-GSC-12584-1] c 37 N82-32730
- BENGTSON, R. D.**  
Fast opening diaphragm Patent  
[NASA-CASE-XLA-03680] c 15 N71-21080
- BENHAM, J. W.**  
Voltage feed through apparatus having reduced partial discharge  
[NASA-CASE-GSC-12347-1] c 33 N80-18286
- BENNETT, G. W.**  
Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31603
- BENNIGHT, J. D.**  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114] c 15 N71-17650  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-3] c 15 N71-24885  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-26148
- BENZ, F. J.**  
Device and method for frictionally testing materials for ignitability  
[NASA-CASE-MSC-20622-1] c 14 N84-22596
- BENZ, H. A.**  
Image readout device with electronically variable spatial resolution  
[NASA-CASE-LAR-12633-1] c 33 N82-24416
- BERDAHL, C. M.**  
Selective image area control of X-ray film exposure density  
[NASA-CASE-NPO-13808-1] c 35 N78-15461  
Thermal energy transformer  
[NASA-CASE-NPO-14058-1] c 44 N79-18443
- BEREMAND, D. G.**  
Direct heating surface combustor  
[NASA-CASE-LEW-11877-1] c 34 N78-27357  
Free-piston regenerative hot gas hydraulic engine  
[NASA-CASE-LEW-12274-1] c 37 N80-31790
- BEREMAND, G. B.**  
Method of making fiber composites  
[NASA-CASE-LEW-10424-2-2] c 18 N72-25539
- BERG, O. E.**  
Dust particle injector for hypervelocity accelerators  
Patent  
[NASA-CASE-XGS-06628] c 24 N71-16213  
Cosmic dust sensor  
[NASA-CASE-GSC-10503-1] c 14 N72-20381
- BERGE, L. H.**  
Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15767  
Gas levitator having fixed levitation node for containerless processing  
[NASA-CASE-MFS-25509-1] c 35 N83-24828
- BERGLUND, R. A.**  
Erectable modular space station Patent  
[NASA-CASE-XLA-00678] c 31 N70-34296
- BERGSTROM, S. L.**  
Production of butanol by fermentation in the presence of co-culture of clostridium  
[NASA-CASE-NPO-16203-1] c 44 N83-29806
- BERKMAN, S.**  
Means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains  
[NASA-CASE-NPO-14298-1] c 76 N80-32244  
Apparatus for use in the production of ribbon-shaped crystals from a silicon melt  
[NASA-CASE-NPO-14297-1] c 33 N81-19389
- BERKOPEC, F. D.**  
Process for preparing liquid metal electrical contact device  
[NASA-CASE-LEW-11978-1] c 33 N77-26385
- BERMAN, P. A.**  
Solar cell grid patterns  
[NASA-CASE-NPO-13087-2] c 44 N76-31666
- BERNARDIN, R. M.**  
Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233
- BERNATOWICZ, D. T.**  
Method of making silicon solar cell array  
[NASA-CASE-LEW-11069-1] c 44 N74-14784
- BERNSEN, B.**  
Electrical apparatus for detection of thermal decomposition of insulation Patent  
[NASA-CASE-XMF-03968] c 14 N71-27188
- BERNSTEIN, A. J.**  
Automatic communication signal monitoring system  
[NASA-CASE-NPO-13941-1] c 32 N79-10262
- BERRIER, B. L.**  
Thrust augmented spin recovery device  
[NASA-CASE-LAR-11970-2] c 08 N81-19130
- BERRY, E. H.**  
Positive dc to positive dc converter Patent  
[NASA-CASE-XMF-14301] c 09 N71-23188  
Positive dc to negative dc converter Patent  
[NASA-CASE-XMF-08217] c 03 N71-23239
- BERRY, R. F., JR.**  
Ultrasonic angle beam standard reflector  
[NASA-CASE-LAR-13153-1] c 71 N84-21274
- BERSON, L. A.**  
Portable 90 deg proof loading device  
[NASA-CASE-MSC-20250-1] c 37 N83-29707
- BESSETTE, R. J.**  
Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012
- BESWICK, A. G.**  
Lunar penetrometer Patent  
[NASA-CASE-XLA-00934] c 14 N71-22765
- BEUYUKIAN, C. S.**  
Tube dimpling tool Patent  
[NASA-CASE-XMS-06876] c 15 N71-21536  
Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492

- BEYLIK, C. M.**  
Pressure seal Patent  
[NASA-CASE-NPO-10796] c 15 N71-27068
- BHAGAT, P. K.**  
Apparatus for determining changes in limb volume  
[NASA-CASE-MSC-18759-1] c 52 N83-27578
- BHAT, B. N.**  
Method of growing composites of the type exhibiting the Soret effect  
[NASA-CASE-MFS-22926-1] c 24 N77-27187
- BHIWANDKER, N. C.**  
Method for making conductors for ferrite memory arrays  
[NASA-CASE-LAR-10994-1] c 24 N75-13032
- BIBBO, C.**  
Flexible seal for valves Patent  
[NASA-CASE-XLE-00101] c 15 N70-33376
- BICKLER, D. B.**  
Electrodes for solid state devices  
[NASA-CASE-NPO-15161-1] c 33 N84-16456  
Increased voltage photovoltaic cell  
[NASA-CASE-NPO-16155-1] c 44 N84-20917
- BICKLER, T. C.**  
Synthetic aperture radar target simulator  
[NASA-CASE-NPO-15024-1] c 32 N84-27951
- BICKNELL, T. J.**  
An electro-optical Doppler tracker means and method for optical correlation of synthetic aperture radar data  
[NASA-CASE-NPO-14998-1] c 33 N81-15194  
Servomechanism for Doppler shift compensation in optical correlator for synthetic aperture radar  
[NASA-CASE-NPO-14998-1] c 32 N83-18975
- BIEHL, A. J.**  
Hypervelocity gun  
[NASA-CASE-XLE-03186-1] c 09 N79-21084
- BIENIEK, T.**  
Metal containing polymers from cyclic tetrameric phenylphosphonitriamides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363
- BIER, M.**  
Electrophoretic fractional elution apparatus employing a rotational seal fraction collector  
[NASA-CASE-MFS-23284-1] c 37 N80-14397
- BIKLE, P. F.**  
System for use in conducting wake investigation for a wing in flight  
[NASA-CASE-FRC-11024-1] c 02 N80-28300
- BILBRO, J. W.**  
Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493
- BILDERBACK, R. R.**  
Amplitude modulated laser transmitter Patent  
[NASA-CASE-XMS-04269] c 16 N71-22895
- BILES, J. E., JR.**  
High impact pressure regulator Patent  
[NASA-CASE-NPO-10175] c 14 N71-18625
- BILL, R. C.**  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-1] c 37 N79-18318  
Gas path seal  
[NASA-CASE-NPO-12131-3] c 37 N80-18400  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-2] c 37 N80-26658  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-19540  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-2] c 37 N82-26674  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453  
Laser surface fusion of plasma sprayed ceramic turbine seals  
[NASA-CASE-LEW-13269-1] c 18 N83-20996  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450  
Thermal barrier coating system having improved adhesion  
[NASA-CASE-LEW-1335901] c 27 N83-31855  
Method of fabricating an abradable gas path seal  
[NASA-CASE-LEW-13269-2] c 37 N84-22957
- BILLINGHAM, J.**  
Temperature controller for a fluid cooled garment  
[NASA-CASE-ARC-10599-1] c 05 N73-26071
- BILLINGS, C. R.**  
Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067
- BILLINGSLEY, F. C.**  
Electro-optical scanning apparatus Patent Application  
[NASA-CASE-NPO-11106] c 14 N70-34697  
Image data rate converter having a drum with a fixed head and a rotatable head  
[NASA-CASE-NPO-11659-1] c 35 N74-11283
- BILLMAN, K. W.**  
Method and apparatus for wavelength tuning of liquid lasers  
[NASA-CASE-ERC-10187] c 16 N69-31343  
Infrared tunable laser  
[NASA-CASE-ARC-10463-1] c 09 N73-32111  
Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397  
Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156
- BILOW, N.**  
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids  
[NASA-CASE-MFS-22411-1] c 37 N74-21058
- BINCKLEY, W. G.**  
Voltage regulator with plural parallel power source sections Patent  
[NASA-CASE-GSC-10891-1] c 10 N71-26626
- BINGHAM, G. J.**  
Shapes for rotating airfoils  
[NASA-CASE-LAR-12396-1] c 02 N84-28732
- BIRCHENOUGH, A. G.**  
Switching regulator  
[NASA-CASE-LEW-11005-1] c 09 N72-21243  
Electronic analog divider  
[NASA-CASE-LEW-11881-1] c 33 N77-17354  
Sustained arc ignition system  
[NASA-CASE-LEW-12444-1] c 33 N77-28385
- BIRD, J. D.**  
Jet shoes  
[NASA-CASE-XLA-08491] c 05 N69-21380
- BIRD, R. G.**  
Portable 90 deg proof loading device  
[NASA-CASE-MSC-20250-1] c 37 N83-29707
- BISHOP, O. L.**  
Broadband choke for antenna structure  
[NASA-CASE-XMS-05303] c 07 N69-27462
- BISHOP, R. E.**  
Optical alignment system Patent  
[NASA-CASE-XNP-02029] c 14 N70-41955
- BLACK, D. H.**  
Horizontally mounted solar collector  
[NASA-CASE-MFS-23349-1] c 44 N79-23481
- BLACK, I. A.**  
Apparatus for measuring thermal conductivity Patent  
[NASA-CASE-XGS-01052] c 14 N71-15992
- BLACK, J. M.**  
Full wave modulator-demodulator amplifier apparatus  
[NASA-CASE-FRC-10072-1] c 33 N74-14939  
Window comparator  
[NASA-CASE-FRC-10090-1] c 33 N78-18308  
Voltage regulator for battery power source  
[NASA-CASE-FRC-10116-1] c 33 N79-23345  
Active notch filter network with variable notch depth, width and frequency  
[NASA-CASE-FRC-11055-1] c 33 N80-29583  
Power converter  
[NASA-CASE-FRC-11014-1] c 33 N82-18494
- BLACK, S. H.**  
Automatic gain control system  
[NASA-CASE-XMS-05307] c 09 N69-24330
- BLACK, W. W.**  
Triaxial antenna Patent  
[NASA-CASE-XGS-02290] c 07 N71-28809
- BLACKABY, J. R.**  
Temperature controller for a fluid cooled garment  
[NASA-CASE-ARC-10599-1] c 05 N73-26071
- BLACKBURN, L. B.**  
Tensile testing apparatus  
[NASA-CASE-LAR-13243-1] c 35 N84-20804
- BLACKSTOCK, T. A.**  
Ferry system  
[NASA-CASE-LAR-10574-1] c 11 N73-13257
- BLAIR, G. R.**  
Inorganic thermal control pigment Patent  
[NASA-CASE-XNP-02139] c 18 N71-24184
- BLAISE, H. T.**  
Air cushion lift pad Patent  
[NASA-CASE-MFS-14685] c 31 N71-15689  
Methods and apparatus employing vibratory energy for wrenching Patent  
[NASA-CASE-MFS-20586] c 15 N71-17686  
Remote manipulator system  
[NASA-CASE-MFS-22022-1] c 37 N76-15460
- BLANCHARD, W. S., JR.**  
Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938  
Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664  
Lateral displacement system for separated rocket stages Patent  
[NASA-CASE-XLA-04804] c 31 N71-23008  
High lift aircraft  
[NASA-CASE-LAR-11252-1] c 05 N75-25914
- BLANCHE, J. F.**  
Electrical feed-through connection for printed circuit boards and printed cable  
[NASA-CASE-XMF-01483] c 14 N69-27431
- BLAND, C.**  
Bacteriostatic conformal coating and methods of application Patent  
[NASA-CASE-GSC-10007] c 18 N71-16046
- BLAND, W. M., JR.**  
Survival couch Patent  
[NASA-CASE-XLA-00118] c 05 N70-33285
- BLANKENSHIP, C. P.**  
Protective device for machine and metalworking tools Patent  
[NASA-CASE-XLE-01092] c 15 N71-22797  
Tantalum modified ferritic iron base alloys  
[NASA-CASE-LEW-12095-1] c 26 N78-18182
- BLAZE, C. J.**  
Formed metal ribbon wrap Patent  
[NASA-CASE-XLE-00164] c 15 N70-36411
- BLESS, J. J.**  
Shunt regulation electric power system  
[NASA-CASE-GSC-10135] c 33 N78-17296
- BLOCH, J. T.**  
Method and apparatus for fabricating improved solar cell modules  
[NASA-CASE-NPO-14416-1] c 44 N81-14389
- BLOOMFIELD, H. S.**  
In-situ laser retorting of oil shale  
[NASA-CASE-LEW-12217-1] c 43 N78-14452
- BLOSSER, E. R.**  
Method for determining presence of OH in magnesium oxide  
[NASA-CASE-NPO-10774] c 06 N72-17095
- BLOUNT, D. H.**  
Propulsion apparatus and method using boil-off gas from a cryogenic liquid  
[NASA-CASE-MFS-25946-1] c 20 N84-15183
- BLUE, J. W.**  
Production of high purity I-123  
[NASA-CASE-LEW-10518-1] c 24 N72-33681  
Method of producing I-123  
[NASA-CASE-LEW-11390-2] c 25 N76-27383  
Production of I-123  
[NASA-CASE-LEW-11390-3] c 25 N76-29379  
Targets for producing high purity I-123  
[NASA-CASE-LEW-10518-3] c 25 N78-27226
- BLUM, P.**  
Rock sampling  
[NASA-CASE-XNP-10007-1] c 46 N74-23068  
Rock sampling  
[NASA-CASE-XNP-09755] c 46 N74-23069
- BLUME, H. C.**  
Parametric amplifiers with idler circuit feedback  
[NASA-CASE-LAR-10253-1] c 09 N72-25258
- BLUMRICH, J. F.**  
Pivotal shock absorbing pad assembly Patent  
[NASA-CASE-XMF-03856] c 31 N70-34159  
Landing pad assembly for aerospace vehicles Patent  
[NASA-CASE-XMF-02853] c 31 N70-36654  
Double-acting shock absorber Patent  
[NASA-CASE-XMF-01045] c 15 N70-40354  
Tank construction for space vehicles Patent  
[NASA-CASE-XMF-01899] c 31 N70-41948  
Docking structure for spacecraft Patent  
[NASA-CASE-XMF-05841] c 31 N71-23912  
Omnidirectional wheel  
[NASA-CASE-MFS-21309-1] c 37 N74-18125
- BLUTINGER, B.**  
Signal generator  
[NASA-CASE-XNP-05612] c 09 N69-21468
- BLYMILLER, E. R.**  
Microcircuit negative cutter  
[NASA-CASE-XLA-09843] c 15 N72-27485
- BOATRIGHT, W. B.**  
Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
[NASA-CASE-LAR-10578-1] c 12 N73-25262
- BOCKWOLDT, W. H.**  
Narrow bandwidth video Patent  
[NASA-CASE-XMS-06740-1] c 07 N71-26579
- BOEDY, D. D.**  
Power supply circuit Patent  
[NASA-CASE-XMS-00913] c 10 N71-23543
- BOEHM, J.**  
Gravity device Patent  
[NASA-CASE-XMF-00424] c 11 N70-38196
- BOEHME, R. J.**  
Electrical rotary joint apparatus for large space structures  
[NASA-CASE-MFS-23981-1] c 07 N83-20944
- BOER, K. W.**  
High field CdS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088

- BOEX, M. W.**  
Filter regeneration systems  
[NASA-CASE-MSC-14273-1] c 34 N75-33342
- BOGNER, R. S.**  
Storage battery comprising negative plates of a wedge shaped configuration  
[NASA-CASE-NPO-11808-1] c 44 N74-19693
- BOGUSZ, F. J.**  
Pressure transducer calibrator Patent  
[NASA-CASE-XNP-01660] c 14 N71-23036
- BOIES, R. D.**  
Instrument for measuring potentials on two dimensional electric field plots Patent  
[NASA-CASE-XLA-08493] c 10 N71-19421
- BOISSEVAIN, A. G.**  
Optical machine tool alignment indicator Patent  
[NASA-CASE-XAC-09489-1] c 15 N71-26673
- BOLT, C. A., JR.**  
Broadband choke for antenna structure  
[NASA-CASE-XMS-05303] c 07 N69-27462
- BOLTON, P. N.**  
Fire extinguishing apparatus having a slidable mass for a penetrator nozzle  
[NASA-CASE-KSC-11064-1] c 31 N81-14137
- BOND, H. H., JR.**  
Digital interface for bi-directional communication between a computer and a peripheral device  
[NASA-CASE-MSC-20258-1] c 60 N84-28492
- BOND, W. W.**  
Connector internal force gauge Patent  
[NASA-CASE-XNP-03918] c 14 N71-23087
- BONISCH, F. H.**  
Locking redundant link  
[NASA-CASE-LAR-11900-1] c 37 N79-14382
- BONNI, J. L.**  
Wire grid forming apparatus Patent  
[NASA-CASE-XLE-00023] c 15 N70-33330
- BONO, P.**  
Recoverable single stage spacecraft booster Patent  
[NASA-CASE-XMF-01973] c 31 N70-41588
- BOODLEY, L. E.**  
Connector strips-positive, negative and T tabs  
[NASA-CASE-XGS-01395] c 03 N69-21539
- BOOM, R. W.**  
Stable superconducting magnet  
[NASA-CASE-XMF-05373-1] c 33 N79-21264
- BOOTH, F. W.**  
Condenser - Separator  
[NASA-CASE-XLA-08645] c 15 N69-21465  
Separator Patent  
[NASA-CASE-XLA-00415] c 15 N71-16079  
Thermal pump-compressor for space use Patent  
[NASA-CASE-XLA-00377] c 33 N71-17610  
Soldering device Patent  
[NASA-CASE-XLA-08911] c 15 N71-27214  
Air removal device  
[NASA-CASE-XLA-8914] c 15 N73-12492  
Zero gravity liquid mixer  
[NASA-CASE-LAR-10195-1] c 15 N73-19458  
Centrifugal lyophobic separator  
[NASA-CASE-LAR-10194-1] c 34 N74-30608  
Air removal device  
[NASA-CASE-XLA-8914-2] c 25 N82-21269
- BOOTH, R. A.**  
Solid state switch  
[NASA-CASE-XNP-09228] c 09 N69-27500
- BORELLI, M. T.**  
Adaptive tracking notch filter system Patent  
[NASA-CASE-XMF-01892] c 10 N71-22986
- BOROSON, H. R.**  
Wide range linear fluxgate magnetometer Patent  
[NASA-CASE-XGS-01587] c 14 N71-15962
- BORSIQ, E.**  
Stabilized unsaturated polyesters  
[NASA-CASE-NPO-16103-1] c 27 N84-32530
- BOSCO, G. B., JR.**  
Rotating shaft seal Patent  
[NASA-CASE-XNP-02862-1] c 15 N71-26294
- BOSHERS, W. A.**  
Battery testing device  
[NASA-CASE-MFS-20761-1] c 44 N74-27519  
Rapid activation and checkout device for batteries  
[NASA-CASE-MFS-22749-1] c 44 N76-14601  
Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N76-27664
- BOSTON, R. E.**  
X-Y alphanumeric character generator for oscilloscopes  
[NASA-CASE-GSC-11582-1] c 33 N75-19517
- BOTTOMS, D. J.**  
Turnstile and flared cone UHF antenna  
[NASA-CASE-LAR-10970-1] c 33 N76-14372
- BOULDIN, D. L.**  
Multilevel metallization method for fabricating a metal oxide semiconductor device  
[NASA-CASE-MFS-23541-1] c 76 N79-14906
- BOURKE, D. G.**  
Data compression system with a minimum time delay unit Patent  
[NASA-CASE-XNP-08832] c 08 N71-12506
- BOUSMAN, W. G.**  
Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029
- BOWER, K. F.**  
Buffered analog converter  
[NASA-CASE-KSC-10397] c 08 N72-25206
- BOXWELL, D. A.**  
Acoustically swept rotor  
[NASA-CASE-ARC-11106-1] c 05 N80-14107
- BOYLE, J. C.**  
Balance torquemeter Patent  
[NASA-CASE-XGS-01013] c 14 N71-23725
- BOYLE, J. V., JR.**  
Adjustable attitude guide device Patent  
[NASA-CASE-XLA-07911] c 15 N71-15571  
Canister closing device Patent  
[NASA-CASE-XLA-01446] c 15 N71-21528
- BOZAJIAN, J. M.**  
Thermal switch Patent  
[NASA-CASE-XNP-00463] c 33 N70-36847
- BRADFIELD, S. P., III**  
Unbalanced quadrupole demodulator  
[NASA-CASE-MSC-14840-1] c 32 N77-24331
- BRADLEY, R. H.**  
Emergency earth orbital escape device  
[NASA-CASE-MSC-13281] c 31 N72-18859  
A method of delivering a vehicle to earth orbit and returning the reusable portion thereof to earth  
[NASA-CASE-MSC-12391] c 30 N73-12884
- BRADY, J. C.**  
Surface roughness detector Patent  
[NASA-CASE-XLA-00203] c 14 N70-34161
- BRAINARD, W. A.**  
Improved refractory coatings  
[NASA-CASE-LEW-23169-2] c 26 N81-16209  
Refractory coatings and method of producing the same  
[NASA-CASE-LEW-13169-1] c 26 N82-29415  
Refractory coatings  
[NASA-CASE-LEW-13169-2] c 26 N82-30371
- BRANDENBURG, G. H.**  
Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053
- BRANDHORST, H. W., JR.**  
Rapidly pulsed, high intensity, incoherent light source  
[NASA-CASE-XLE-2529-3] c 33 N74-20859  
High power laser apparatus and system  
[NASA-CASE-XLE-2529-2] c 36 N75-27364  
Solar cell assembly  
[NASA-CASE-LEW-11549-1] c 44 N77-19571  
Application of semiconductor diffusants to solar cells by screen printing  
[NASA-CASE-LEW-12775-1] c 44 N79-11468  
Back wall solar cell  
[NASA-CASE-LEW-12236-2] c 44 N79-14528
- BRANDON, C. A.**  
Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MSC-18172-1] c 26 N80-19237
- BRANSTETTER, J. R.**  
Black-body furnace Patent  
[NASA-CASE-XLE-01399] c 33 N71-15625
- BRANTLEY, J. W.**  
Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-19170
- BRANTLEY, L. W., JR.**  
Solar energy absorber  
[NASA-CASE-MFS-22743-1] c 44 N76-22657  
Solar energy trap  
[NASA-CASE-MFS-22744-1] c 44 N76-24696  
Thermal energy storage system  
[NASA-CASE-MFS-23187-1] c 44 N76-31667  
Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking  
[NASA-CASE-MFS-23267-1] c 35 N77-20401
- BRASCHWITZ, J. M.**  
External liquid-spray cooling of turbine blades Patent  
[NASA-CASE-XLE-00037] c 28 N70-33372
- BRAUN, W.**  
Ultraviolet atomic emission detector  
[NASA-CASE-HQN-10758-1] c 14 N72-25428
- BRAWNER, C. C.**  
Specific wavelength colorimeter  
[NASA-CASE-MSC-14081-1] c 35 N74-27860
- BRAWNER, E. L.**  
Color perception tester  
[NASA-CASE-KSC-10278] c 05 N72-16015
- BREALT, R. P.**  
System for the measurement of ultra-low stray light levels  
[NASA-CASE-MFS-23513-1] c 74 N79-11865
- BREAZEALE, M. A.**  
Liquid-immersible electrostatic ultrasonic transducer  
[NASA-CASE-LAR-12465-1] c 33 N82-26572
- BRECKENRIDGE, R.**  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-2] c 33 N83-24763
- BRECKENRIDGE, R. A.**  
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-26043  
Magnetometer with a miniature transducer and automatic scanning  
[NASA-CASE-LAR-11617-2] c 35 N78-32397  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 35 N82-31659
- BRECKINRIDGE, J. B.**  
Interferometer  
[NASA-CASE-NPO-14502-1] c 74 N81-17888  
Interferometer  
[NASA-CASE-NPO-14448-1] c 74 N81-29963  
Integrated optics in an electrically scanned imaging Fourier transform spectrometer  
[NASA-CASE-NPO-15844-1] c 74 N83-12992  
Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541
- BREED, L. L.**  
Fluorinated esters of polycarboxylic acids  
[NASA-CASE-MFS-21040-1] c 06 N73-30098
- BREED, L. W.**  
Preparation of ordered poly /arylenesiloxane/ polymers  
[NASA-CASE-XMF-10753] c 06 N71-11237
- BREEZE, R. K.**  
Method and system for respiration analysis Patent  
[NASA-CASE-XFR-08403] c 05 N71-11202
- BREGMAN, B. J.**  
Derivation of a tangent function using an integrated circuit four-quadrant multiplier  
[NASA-CASE-MSC-13907-1] c 10 N73-26230
- BREITWIESER, R.**  
High current electrical lead  
[NASA-CASE-LEW-10950-1] c 33 N74-27683
- BREJCHA, A. G., JR.**  
Coaxial cable connector Patent  
[NASA-CASE-XNP-04732] c 09 N71-20851
- BRESHEARS, R. R.**  
Plasma igniter for internal combustion engine  
[NASA-CASE-NPO-13828-1] c 37 N79-11405
- BREUER, D. R.**  
Temperature compensated current source  
[NASA-CASE-MSC-11235] c 33 N78-17294
- BREY, H.**  
Frequency division multiplex technique  
[NASA-CASE-KSC-10521] c 07 N73-20176  
FM/CW radar system  
[NASA-CASE-MFS-22234-1] c 32 N79-10264
- BRICKER, R. W.**  
Mass measuring system Patent  
[NASA-CASE-XMS-03371] c 05 N70-42000
- BRIGHT, C. W.**  
Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772
- BRINICH, P. F.**  
Electrothermal rockets having improved heat exchangers Patent  
[NASA-CASE-XLE-01783] c 28 N70-34175
- BRINKS, B. J.**  
Plating nickel on aluminum castings Patent  
[NASA-CASE-XNP-04148] c 17 N71-24830
- BRISKEN, A. F.**  
Automatic transponder  
[NASA-CASE-GSC-12075-1] c 32 N77-31350
- BRISSENDEN, R. F.**  
Cable arrangement for rigid tethering Patent  
[NASA-CASE-XLA-02332] c 32 N71-17609
- BRITT, T. O.**  
Remote lightning monitor system  
[NASA-CASE-KSC-11031-1] c 33 N79-11315
- BRITZ, W. J.**  
Rapid activation and checkout device for batteries  
[NASA-CASE-MFS-22749-1] c 44 N76-14601  
Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N76-27664
- BROCK, F. J.**  
Gauge calibration by diffusion  
[NASA-CASE-XGS-07752] c 14 N73-30390  
Ultrahigh vacuum measuring ionization gauge  
[NASA-CASE-XLA-05087] c 14 N73-30391
- BROCKMAN, M. H.**  
Charge storage diode modulators and demodulators  
[NASA-CASE-NPO-10189-1] c 33 N77-21314

- Radio frequency arraying method for receivers  
[NASA-CASE-NPO-14328-1] c 32 N80-18253  
Faraday rotation measurement method and apparatus  
[NASA-CASE-NPO-14839-1] c 35 N82-15381
- BRODER, J. D.**  
Method of making electrical contact on silicon solar cell and resultant product Patent  
[NASA-CASE-XLE-04787] c 03 N71-20492  
Method of making silicon solar cell array  
[NASA-CASE-LEW-11069-1] c 44 N74-14784  
Covered silicon solar cells and method of manufacture  
[NASA-CASE-LEW-11065-2] c 44 N76-14600  
Silicon nitride coated, plastic covered solar cell  
[NASA-CASE-LEW-11496-1] c 44 N77-14580
- BRODERICK, J. C.**  
Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612
- BRODERICK, R. F.**  
Signal ratio system utilizing voltage controlled oscillators Patent  
[NASA-CASE-XMF-04367] c 09 N71-23545  
Radar antenna system for acquisition and tracking Patent  
[NASA-CASE-XMS-09610] c 07 N71-24625
- BRODIE, S. B.**  
Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041
- BROKL, S. S.**  
Numerical computer peripheral interactive device with manual controls  
[NASA-CASE-NPO-11497] c 08 N73-25206
- BROMAN, C. L.**  
Dual output variable pitch turbofan actuation system  
[NASA-CASE-LEW-12419-1] c 07 N77-14025
- BROOKS, A. D.**  
Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N76-22509
- BROOKS, D. E.**  
Method for separating biological cells  
[NASA-CASE-MFS-23883-1] c 51 N80-16715
- BROOKS, G. W.**  
Impact simulator Patent  
[NASA-CASE-XLA-00493] c 11 N70-34786  
Flexible ring slosh damping baffle Patent  
[NASA-CASE-LAR-10317-1] c 32 N71-16103  
Lunar penetrometer Patent  
[NASA-CASE-XLA-00934] c 14 N71-22765
- BROOKS, J. D.**  
Continuously operating induction plasma accelerator Patent  
[NASA-CASE-XLA-01354] c 25 N70-36946
- BROOKS, R. A.**  
Capacitive tank gaging apparatus being independent of liquid distribution  
[NASA-CASE-MFS-21629] c 14 N72-22442
- BROOKS, R. L.**  
Fluid sample collection and distribution system  
[NASA-CASE-MSC-16841-1] c 34 N79-24285  
Method for detecting coliform organisms  
[NASA-CASE-ARC-11322-1] c 51 N83-28849
- BROSH, A.**  
Flow separation detector  
[NASA-CASE-ARC-11046-1] c 35 N78-14364
- BROUSSARD, P. H.**  
Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443
- BROUSSARD, R.**  
Optical tracking mount Patent  
[NASA-CASE-MFS-14017] c 14 N71-26627
- BROWN, C. E.**  
G conditioning suit Patent  
[NASA-CASE-XLA-02898] c 05 N71-20268
- BROWN, D.**  
Radial module space station Patent  
[NASA-CASE-XMS-01906] c 31 N70-41373
- BROWN, D. W.**  
Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680
- BROWN, E. L.**  
Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290
- BROWN, G. A.**  
Integrated circuit including field effect transistor and cermet resistor  
[NASA-CASE-GSC-10835-1] c 09 N72-33205
- BROWN, G. V.**  
Method of fabricating a twisted composite superconductor  
[NASA-CASE-LEW-11015] c 26 N73-32571  
Magnetocaloric pump  
[NASA-CASE-LEW-11672-1] c 37 N74-27904  
Magnetic heat pumping  
[NASA-CASE-LEW-12508-1] c 34 N78-17335
- Magnetic heat pumping  
[NASA-CASE-LEW-12508-3] c 34 N83-29625
- BROWN, H. H.**  
Reaction tester  
[NASA-CASE-MSC-13604-1] c 05 N73-13114
- BROWN, J. W.**  
Reduced gravity fecal collector seat and urinal  
[NASA-CASE-MFS-22102-1] c 54 N74-20725
- BROWN, K. H.**  
Phase modulator Patent  
[NASA-CASE-MSC-13201-1] c 07 N71-28429
- BROWN, N. D.**  
Deployable flexible tunnel  
[NASA-CASE-MFS-22636-1] c 37 N76-22540
- BROWN, P. A.**  
Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-2] c 52 N81-14613  
Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-1] c 52 N81-29764
- BROWN, R. F.**  
Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692
- BROWN, R. H.**  
Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067
- BROWN, R. L.**  
Gimballed, partially submerged rocket nozzle Patent  
[NASA-CASE-XMF-01544] c 28 N70-34162
- BROWN, R. M.**  
Multiple pass reimaging optical system  
[NASA-CASE-ARC-10194-1] c 23 N73-20741
- BROWN, W. E., III**  
Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774  
Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437  
Method and apparatus for measuring solar activity and atmospheric radiation effects  
[NASA-CASE-ERC-10276] c 14 N73-26432
- BROWNING, R. E.**  
Flexible seal for valves Patent  
[NASA-CASE-XLE-00101] c 15 N70-33376
- BRYLES, H. F.**  
Parallel plate viscometer Patent  
[NASA-CASE-XNP-09462] c 14 N71-17584  
Method of making hollow elastomeric bodies  
[NASA-CASE-NPO-13535-1] c 37 N76-31524
- BRYLES, H. H.**  
Parallel plate viscometer Patent  
[NASA-CASE-XNP-09462] c 14 N71-17584
- BRUCE, M. M., JR.**  
Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421
- BRUCE, R. A.**  
Specialized halogen generator for purification of water Patent  
[NASA-CASE-XLA-08913] c 14 N71-28933  
Air removal device  
[NASA-CASE-XLA-8914] c 15 N73-12492  
Zero gravity liquid mixer  
[NASA-CASE-LAR-10195-1] c 15 N73-19458  
Centrifugal lyophobic separator  
[NASA-CASE-LAR-10194-1] c 34 N74-30608  
Air removal device  
[NASA-CASE-XLA-8914-2] c 25 N82-21269
- BRUNSON, J. W.**  
Decommutator patchboard verifier  
[NASA-CASE-KSC-11065-1] c 33 N81-26359
- BRUNSTEIN, S. A.**  
Dual frequency microwave reflex feed  
[NASA-CASE-NPO-13091-1] c 09 N73-12214
- BRYAN, C. J.**  
Autoignition test cell Patent  
[NASA-CASE-KSC-10198] c 11 N71-28629  
System for sterilizing objects  
[NASA-CASE-KSC-11085-1] c 54 N81-24724
- BRYAN, M. B.**  
Wind tunnel model damper Patent  
[NASA-CASE-XLA-09480] c 11 N71-33612
- BRYANT, E. L.**  
Fatigue testing device Patent  
[NASA-CASE-XLA-02131] c 32 N70-42003  
Noncontacting method for measuring angular deflection  
[NASA-CASE-LAR-12178-1] c 74 N80-21138
- BRYANT, W. H.**  
Digital controller for a Baum folding machine  
[NASA-CASE-LAR-10688-1] c 37 N74-21056
- BRYSON, R. P.**  
Soil penetrometer  
[NASA-CASE-XNP-05530] c 14 N73-32321
- BUBE, K. R.**  
Solar cell with improved N-region contact and method of forming the same  
[NASA-CASE-NPO-14205-1] c 44 N79-31752
- BUCHANAN, R. I.**  
Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925  
Hypersonic test facility Patent  
[NASA-CASE-XLA-05378] c 11 N71-21475
- BUCHHELE, D. R.**  
Optical torque meter Patent  
[NASA-CASE-XLE-00503] c 14 N70-34818
- BUCHHOLD, T. A.**  
Superconductive accelerometer Patent  
[NASA-CASE-XMF-01099] c 14 N71-15969
- BUCHMILLER, L. D.**  
Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550
- BUCKLEY, D. H.**  
Gas lubricant compositions Patent  
[NASA-CASE-XLE-00353] c 18 N70-39897  
Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-01765] c 18 N71-10772  
Alloys for bearings Patent  
[NASA-CASE-XLE-05033] c 15 N71-23810  
Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-10337] c 15 N71-24046
- BUCKLEY, J.**  
Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591
- BUCKLEY, J. D.**  
Induction heating gun  
[NASA-CASE-LAR-12540-2] c 27 N82-24345  
One-step dual purpose joining technique  
[NASA-CASE-LAR-12595-1] c 33 N82-26571  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- BUHLER, M. G.**  
Split-cross-bridge-resistor for testing for proper fabrication of integrated circuit  
[NASA-CASE-NPO-16021-1] c 33 N83-24769
- BUHLER, G. V.**  
Meter for use in detecting tension in straps having predetermined elastic characteristics  
[NASA-CASE-MFS-22189-1] c 35 N75-19615
- BULLINGER, H. B.**  
Photocuring of metal-oxide layers  
[NASA-CASE-ERC-10108] c 06 N72-21094
- BUNCE, R. C.**  
Closed loop ranging system Patent  
[NASA-CASE-XNP-01501] c 21 N70-41930  
Automatic carrier acquisition system  
[NASA-CASE-NPO-11628-1] c 07 N73-30113
- BUNIN, B. L.**  
Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859
- BUNKER, E. R., JR.**  
Automated equipotential plotter  
[NASA-CASE-NPO-11134] c 09 N72-21246
- BUNKER, J. W.**  
Slide release mechanism  
[NASA-CASE-MSC-20080-1] c 37 N82-31688
- BURCH, C. F.**  
Grinding arrangement for ball nose milling cutters  
[NASA-CASE-LAR-10450-1] c 37 N74-27905
- BURCH, J. L.**  
Two speed drive system  
[NASA-CASE-MFS-20645-1] c 37 N74-23070  
Automatically operable self-leveling load table  
[NASA-CASE-MFS-22039-1] c 09 N75-12968  
Actuator device for artificial leg  
[NASA-CASE-MFS-23225-1] c 52 N77-14735  
Combined docking and grasping device  
[NASA-CASE-MFS-23088-1] c 37 N77-23483  
Apparatus for assembling space structure  
[NASA-CASE-MFS-23579-1] c 18 N79-11108  
Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443
- BURCHAM, F. W.**  
Multiple pure tone elimination strut assembly  
[NASA-CASE-FRC-11062-1] c 71 N82-16800
- BURCHAM, T. W.**  
Controlled release device Patent  
[NASA-CASE-KKS-03338] c 15 N71-24043
- BURCHER, E. E.**  
Laser communication system for controlling several functions at a location remote to the laser  
[NASA-CASE-LAR-10311-1] c 16 N73-16536  
Transmitting and reflecting diffuser  
[NASA-CASE-LAR-10385-2] c 70 N74-13436  
Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-11213-1] c 35 N75-15014  
Spectrometer integrated with a facsimile camera  
[NASA-CASE-LAR-11207-1] c 35 N75-19613  
Transmitting and reflecting diffuser  
[NASA-CASE-LAR-10385-3] c 74 N78-15879



- Device for measuring the contour of a surface  
[NASA-CASE-LAR-11869-1] c 74 N78-27904
- BURDIN, C.**  
Phase-locked servo system  
[NASA-CASE-MFS-22073-1] c 33 N75-13139
- BURGETT, F. A.**  
Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233  
Process for conditioning tanned sharkskin and articles made therefrom Patent  
[NASA-CASE-XMS-09691-1] c 18 N71-15545
- BURK, S. M., JR.**  
Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft  
[NASA-CASE-LAR-10753-1] c 08 N74-30421
- BURKE, J. R.**  
Optical spin compensator  
[NASA-CASE-XGS-02401] c 14 N69-27485
- BURKHART, J. A.**  
Magneto-plasma-dynamic arc thruster  
[NASA-CASE-LEW-11180-1] c 25 N73-25760
- BURKLEY, R. A.**  
Panelized high performance multilayer insulation Patent  
[NASA-CASE-MFS-14023] c 33 N71-25351
- BURKS, H. D.**  
Polyphenylene ethers with imide linking groups  
[NASA-CASE-LAR-12980-1] c 27 N84-22749  
Melt-flow-toughness modified polyimide  
[NASA-CASE-LAR-13135-1] c 27 N84-34616
- BURKS, R. E., JR.**  
Infusible silazane polymer and process for producing same  
[NASA-CASE-XMF-02526-1] c 27 N79-21190
- BURNETT, J. E.**  
Tissue macerating instrument  
[NASA-CASE-LEW-12668-1] c 52 N78-14773
- BURNHAM, D. C.**  
Method and apparatus for wavelength tuning of liquid lasers  
[NASA-CASE-ERC-10187] c 16 N69-31343
- BURNS, E. A.**  
Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032  
Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125
- BURNS, F. P.**  
Biomedical radiation detecting probe Patent  
[NASA-CASE-XMS-01177] c 05 N71-19440
- BURNS, M. R., JR.**  
Automatic weld torch guidance control system  
[NASA-CASE-MFS-25807] c 37 N83-20154
- BURNS, R. H.**  
High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119
- BURNS, R. K.**  
Protected isotope heat source  
[NASA-CASE-LEW-11227-1] c 73 N75-30876
- BURROUS, C. N.**  
Temperature compensated light source using a light emitting diode  
[NASA-CASE-ARC-10467-1] c 09 N73-14214
- BURROWS, D. L.**  
Insulating structure Patent  
[NASA-CASE-XMF-00341] c 15 N70-33323
- BURTON, D. R.**  
Garments for controlling the temperature of the body Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147
- BURTON, W. A.**  
Endless tape cartridge Patent  
[NASA-CASE-XGS-00769] c 14 N70-41847  
Annular slit colloid thruster Patent  
[NASA-CASE-GSC-10709-1] c 28 N71-25213
- BUSEMANN, A.**  
Plasma accelerator Patent  
[NASA-CASE-XLA-00675] c 25 N70-33267
- BUSH, H. G.**  
Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575  
Lightweight structural columns  
[NASA-CASE-LAR-12095-1] c 31 N81-25258  
Self-locking mechanical center joint  
[NASA-CASE-LAR-12864-1] c 37 N82-29606  
Mechanical end joint system for structural column elements  
[NASA-CASE-LAR-12482-1] c 37 N82-32732  
Synchronously deployable truss structure  
[NASA-CASE-LAR-13117-1] c 18 N84-16250
- BUSHNELL, D. M.**  
Powder fed sheared dispersal particle generator  
[NASA-CASE-LAR-12785-1] c 37 N84-16561
- BUTLER, D. H.**  
Miniature vibration isolator Patent  
[NASA-CASE-XLA-01019] c 15 N70-40156
- Radio frequency filter device  
[NASA-CASE-XLA-02609] c 09 N72-25256
- BUTLER, J. M.**  
Tackifier for addition polyimides containing monoethylphthalate  
[NASA-CASE-LAR-12642-1] c 27 N81-29229
- BUTLER, L. V.**  
Protective telescoping shield for solar concentrator  
[NASA-CASE-NPO-16236-1] c 44 N84-25164
- BUTMAN, S.**  
Signal phase estimator  
[NASA-CASE-NPO-11203] c 10 N72-20224  
Multichannel telemetry system  
[NASA-CASE-NPO-11572] c 07 N73-18121  
Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier  
[NASA-CASE-NPO-11593-1] c 07 N73-28012
- BUTMAN, S. A.**  
Multiple rate digital command detection system with range clean-up capability  
[NASA-CASE-NPO-13753-1] c 32 N77-20289
- BUTNER, C. L.**  
Optical multiple sample vacuum integrating sphere  
[NASA-CASE-GSC-12849-1] c 74 N84-15960
- BUZZARD, R. J.**  
Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948
- BYERS, D. C.**  
Electrostatic thruster with improved insulators Patent  
[NASA-CASE-XLE-01902] c 28 N71-10574  
Sputtering holes with ion beamlets  
[NASA-CASE-LEW-11846-1] c 20 N74-31269
- BYNUM, B. G.**  
Response analyzers for sensors Patent  
[NASA-CASE-MFS-11204] c 14 N71-29134  
Ergometer  
[NASA-CASE-MFS-21109-1] c 05 N73-27941
- BYRD, A. W.**  
Heat pipe thermionic diode power system Patent  
[NASA-CASE-XMF-05843] c 03 N71-11055  
Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114-2] c 09 N71-24807  
Isothermal cover with thermal reservoirs Patent  
[NASA-CASE-MFS-20355] c 33 N71-25353  
Power system with heat pipe liquid coolant lines Patent  
[NASA-CASE-MFS-14114] c 33 N71-27862  
Thermoelectric power system  
[NASA-CASE-MFS-22002-1] c 44 N76-16612
- BYRD, J. D.**  
Elastomeric silazane polymers and process for preparing the same Patent  
[NASA-CASE-XMF-04133] c 06 N71-20717
- BYRD, N. R.**  
Thermally conductive polymers  
[NASA-CASE-GSC-11304-1] c 06 N72-21105
- BYRNE, F.**  
BCD to decimal decoder Patent  
[NASA-CASE-XKS-06167] c 08 N71-24890  
Video sync processor Patent  
[NASA-CASE-KSC-10002] c 10 N71-25865  
Automatic frequency control loop including synchronous switching circuits  
[NASA-CASE-KSC-10393] c 09 N72-21247  
Digital servo controller  
[NASA-CASE-KSC-10769-1] c 33 N74-29556  
Common data buffer system  
[NASA-CASE-KSC-11048-1] c 62 N81-24779  
Video processor for air traffic control beacon system  
[NASA-CASE-KSC-11155-1] c 33 N84-15395
- BYVIK, C. E.**  
Method for determining the point of zero zeta potential of semiconductor materials  
[NASA-CASE-LAR-12893-1] c 33 N82-28573  
Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019
- CABLE, C. W.**  
Solar cell assembly test method  
[NASA-CASE-NPO-10401] c 03 N72-20033
- CABLE, W. L.**  
Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly  
[NASA-CASE-GSC-11560-1] c 33 N74-20861
- CACOSSA, R. A.**  
Method of detecting impending saturation of magnetic cores  
[NASA-CASE-ERC-10089] c 23 N72-17747
- CAGLIOSTRO, D. E.**  
Method of carbonizing polyacrylonitrile fibers  
[NASA-CASE-ARC-11261-1] c 24 N83-25789
- CAHILL, K. J.**  
Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-1] c 33 N80-20487  
Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-2] c 44 N81-29524
- CAHILL, N. E.**  
Positive locking check valve Patent  
[NASA-CASE-XMS-09310] c 15 N71-22706
- CAIRO, F. J.**  
Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13652-2] c 44 N79-24431
- CALANDRO, J. N.**  
Resilient wheel Patent  
[NASA-CASE-MFS-13929] c 15 N71-27091
- CALFO, F. D.**  
Micronized coal burner facility  
[NASA-CASE-LEW-13426-1] c 25 N84-16276
- CALLAHAN, D. E.**  
Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612
- CALVERT, H. F.**  
Modification and improvements to cooled blades Patent  
[NASA-CASE-XLE-00092] c 15 N70-33264
- CALVERT, J. A.**  
Redundant motor drive system  
[NASA-CASE-MFS-23777-1] c 37 N80-32716  
Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860
- CAMACHO, S. L.**  
Protective circuit of the spark gap type  
[NASA-CASE-XAC-08981] c 09 N69-39897
- CAMARDA, C. J.**  
Heat pipe cooled probe  
[NASA-CASE-LAR-12588-1] c 44 N81-24525
- CAMBRA, J. M.**  
Overvoltage protection network  
[NASA-CASE-NPO-10197-1] c 33 N74-17929
- CAMERON, J. R.**  
Method and system for in vivo measurement of bone tissue using a two level energy source  
[NASA-CASE-MSC-14276-1] c 52 N77-14737
- CAMP, D. W.**  
Anemometer with braking mechanism Patent  
[NASA-CASE-XMF-05224] c 14 N71-23726  
Maxometers (peak wind speed anemometers)  
[NASA-CASE-MFS-20916] c 14 N73-25460
- CAMP, E. L.**  
Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244
- CAMPBELL, B. A.**  
Epoxy-aziridine polymer product Patent  
[NASA-CASE-NPO-10701] c 06 N71-28620
- CAMPBELL, C. C., JR.**  
Discrete local altitude sensing device Patent  
[NASA-CASE-XMS-03792] c 14 N70-41812
- CAMPBELL, C. W.**  
Collimated beam manifold with the number of output beams variable at a given output angle  
[NASA-CASE-MFS-25312-1] c 74 N83-17305
- CAMPBELL, D. H.**  
Method of making a rocket nozzle  
[NASA-CASE-XMF-06884-1] c 20 N79-21123
- CAMPBELL, D. R.**  
Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773
- CAMPBELL, F. D.**  
Radiant source tracker independent of nonconstant irradiance  
[NASA-CASE-NPO-11686] c 14 N73-25462
- CAMPBELL, G. E.**  
Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420  
Constant force friction damper  
[NASA-CASE-MSC-20505-1] c 18 N84-22611
- CAMPBELL, G. W.**  
Method and system for respiration analysis Patent  
[NASA-CASE-XFR-08403] c 05 N71-11202
- CAMPBELL, J. G.**  
Multilayer film cooled pyrolytic graphite rocket nozzle Patent  
[NASA-CASE-XNP-04389] c 28 N71-20942  
Tube sealing device Patent  
[NASA-CASE-NPO-10431] c 15 N71-29132
- CAMPBELL, R. A.**  
Redundant hydraulic control system for actuators  
[NASA-CASE-MFS-20944] c 15 N73-13466  
Contour measurement system  
[NASA-CASE-MFS-23726-1] c 43 N79-26439  
Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423

- CAMPBELL, R. B., JR.**  
Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493
- CAMPBELL, R. L.**  
Thermal protection system  
[NASA-CASE-MSC-18796-1] c 24 N82-26389
- CAMPBELL, T. G.**  
Omnidirectional slot antenna for mounting on cylindrical space vehicle  
[NASA-CASE-LAR-10163-1] c 09 N72-25247  
Rotor blade with passive tuned tab  
[NASA-CASE-ARC-11444-1] c 02 N83-25683
- CAMPEN, C. F., JR.**  
Automated system for identifying traces of organic chemical compounds in aqueous solutions  
[NASA-CASE-NPO-13063-1] c 25 N76-18245
- CANCRO, C. A.**  
Low power drain semi-conductor circuit  
[NASA-CASE-XGS-04999] c 09 N69-24317  
Wide range data compression system Patent  
[NASA-CASE-XGS-02612] c 08 N71-19435  
Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent  
[NASA-CASE-XGS-03632] c 09 N71-23311  
Fast response low power drain logic circuits  
[NASA-CASE-GSC-10878-1] c 10 N72-22236
- CANICATTI, C. L.**  
Voltage monitoring system  
[NASA-CASE-KSC-10736-1] c 33 N75-19521
- CANNING, T. M.**  
Shock-layer radiation measurement  
[NASA-CASE-XAC-02970] c 14 N69-39896  
Hypervelocity gun Patent  
[NASA-CASE-XAC-05902] c 11 N71-18578  
Heater-mixer for stored fluids  
[NASA-CASE-ARC-10442-1] c 35 N74-15093  
Bimetallic fluid displacement apparatus  
[NASA-CASE-ARC-10441-1] c 35 N74-15126  
High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272
- CANTOR, C.**  
Attitude control system Patent  
[NASA-CASE-XGS-04393] c 21 N71-14159  
Amplifier clamping circuit for horizon scanner Patent  
[NASA-CASE-XGS-01784] c 10 N71-20782  
Roll alignment detector  
[NASA-CASE-GSC-10514-1] c 14 N72-20379
- CANTRELL, J. H., JR.**  
Liquid-immersible electrostatic ultrasonic transducer  
[NASA-CASE-LAR-12485-1] c 33 N82-26572
- CANVEL, H.**  
Video communication system and apparatus Patent  
[NASA-CASE-XNP-06611] c 07 N71-26102
- CARLETTE, R. K.**  
Current steering commutator  
[NASA-CASE-NPO-10743] c 08 N72-21199
- CAPPS, J. E.**  
Two-step rocket engine bipropellant valve Patent  
[NASA-CASE-XMS-04890-1] c 15 N70-22192
- CAREN, R. P.**  
Dual solid cryogenics for spacecraft refrigeration Patent  
[NASA-CASE-GSC-10188-1] c 23 N71-24725
- CARL, C.**  
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system  
[NASA-CASE-NPO-11302-1] c 07 N73-13149  
Method and apparatus for a single channel digital communications system  
[NASA-CASE-NPO-11302-2] c 32 N74-10132  
Digital second-order phase-locked loop  
[NASA-CASE-NPO-11905-1] c 33 N74-12887
- CARL, G. R.**  
Air conditioned suit  
[NASA-CASE-LAR-10076-1] c 05 N73-20137
- CARLE, C. E.**  
Reel safety brake  
[NASA-CASE-GSC-11960-1] c 37 N77-14479
- CARLISLE, T. E.**  
Method and apparatus for controllably heating fluid Patent  
[NASA-CASE-XMF-04237] c 33 N71-16278
- CARLSON, A. W.**  
Pulse-width modulation multiplier Patent  
[NASA-CASE-XER-09213] c 07 N71-12390
- CARLSON, H. W.**  
Supersonic aircraft Patent  
[NASA-CASE-XLA-04451] c 02 N71-12243
- CARLSON, R. L.**  
Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N79-33468
- CARLSON, W. C. A.**  
Electric arc device for heating gases Patent  
[NASA-CASE-XAC-00319] c 25 N70-41628
- CARMIN, D. L., JR.**  
Anti-fog composition  
[NASA-CASE-MSC-13530-2] c 23 N75-14834
- CARMODY, R. J.**  
Honeycomb panel and method of making same Patent  
[NASA-CASE-XMF-01402] c 18 N71-21851
- CARO, E. R.**  
High power RF coaxial switch  
[NASA-CASE-NPO-14229-1] c 33 N80-18285  
Method and apparatus for contour mapping using synthetic aperture radar  
[NASA-CASE-NPO-15939-1] c 43 N83-20324
- CARON, P. R.**  
Logarithmic function generator utilizing an exponentially varying signal in an inverse manner  
[NASA-CASE-ERC-10267] c 09 N72-23173  
Phase control circuits using frequency multiplications for phased array antennas  
[NASA-CASE-ERC-10285] c 10 N73-16206
- CARPINI, T. D.**  
Flow velocity and directional instrument  
[NASA-CASE-LAR-10855-1] c 14 N73-13415
- CARR, W. F.**  
Split nut separation system Patent  
[NASA-CASE-XNP-06914] c 15 N71-21489
- CARRAWAY, J. B.**  
Miniature multichannel biotelemetry system  
[NASA-CASE-NPO-13065-1] c 52 N74-26625
- CARRENO, V. A.**  
A single frequency multitransmitter telemetry system  
[NASA-CASE-LAR-13006-1] c 17 N83-20995
- CARROLL, W. F.**  
Stabilized zinc oxide coating compositions Patent  
[NASA-CASE-XMF-07770-2] c 18 N71-26772
- CARSLEY, R. B.**  
CAM controlled retractable door latch  
[NASA-CASE-MSC-20304-1] c 37 N82-31690
- CARSON, J. W.**  
Quasi-optical microwave component Patent  
[NASA-CASE-ERC-10011] c 07 N71-29065
- CARSON, L. M.**  
PN lock indicator for dithered PN code tracking loop  
[NASA-CASE-NPO-14435-1] c 33 N81-33405  
Discriminator aided phase lock acquisition for suppressed carrier signals  
[NASA-CASE-NPO-14311-1] c 33 N82-29539
- CARSON, P. R.**  
Array phasing device Patent  
[NASA-CASE-ERC-10046] c 10 N71-18722
- CARSON, W. M., JR.**  
Didymium hydrate additive to nickel hydroxide electrodes Patent  
[NASA-CASE-XGS-03505] c 03 N71-10608
- CARTER, A. F.**  
Plasma accelerator Patent  
[NASA-CASE-XLA-00675] c 25 N70-33267  
Method and apparatus for producing a plasma Patent  
[NASA-CASE-XLA-00147] c 25 N70-34661
- CARTER, J. M.**  
Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290
- CARTER, W. K.**  
Emergency earth orbital escape device  
[NASA-CASE-MSC-13281] c 31 N72-18859
- CARUSO, A. J.**  
Sorption vacuum trap Patent  
[NASA-CASE-XER-09519] c 14 N71-18483
- CARUSO, V. P.**  
Method of peening and portable peening gun  
[NASA-CASE-MFS-23047-1] c 37 N78-18454
- CARVER, V. C.**  
Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396
- CASE, M. C.**  
Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012
- CASEY, L. O.**  
Electrical load protection device Patent  
[NASA-CASE-MSC-12135-1] c 09 N71-12526
- CASH, W. H., JR.**  
Pulse transducer with artifact signal attenuator  
[NASA-CASE-FRC-11012-1] c 52 N80-23969
- CASHION, K. D.**  
Solar optical telescope dome control system Patent  
[NASA-CASE-MSC-10966] c 14 N71-19568
- CASON, R. L.**  
Apparatus including a plurality of spaced transformers for locating short circuits in cables  
[NASA-CASE-KSC-10899-1] c 33 N79-18193
- CASTLE, K. D.**  
Shielded conductor cable system  
[NASA-CASE-MSC-12745-1] c 33 N81-27397
- CASTLEMAN, K. R.**  
Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694
- CASTON, D.**  
High temperature emittance coatings and coating compositions  
[NASA-CASE-MSC-18851-1] c 27 N82-26460
- CATLAW, T. G.**  
High contrast cathode ray tube  
[NASA-CASE-ERC-10468] c 09 N72-20206
- CAUDILL, L. O.**  
Long range laser traversing system  
[NASA-CASE-ERC-11262-1] c 36 N74-21091
- CAWLEY, J. D.**  
Oxidizing seal for a turbine tip gas path  
[NASA-CASE-LEW-14053-1] c 07 N84-22563
- CECCON, H. L.**  
Optical pump and driver system for lasers  
[NASA-CASE-ERC-10283] c 16 N72-25485
- CELLIER, A.**  
Digital numerically controlled oscillator  
[NASA-CASE-MSC-16747-1] c 33 N81-17349
- CEPOLLINA, F. J.**  
Strain gauge measuring techniques Patent  
[NASA-CASE-XGS-04478] c 14 N71-24233
- CERINI, D. J.**  
Hydrogen-rich gas generator  
[NASA-CASE-NPO-13560-1] c 44 N77-10636  
Start up system for hydrogen generator used with an internal combustion engine  
[NASA-CASE-NPO-13849-1] c 28 N80-10374
- CERVENKA, P. O.**  
External bulb variable volume maser  
[NASA-CASE-GSC-12334-1] c 36 N79-14362
- CHAI, A. T.**  
Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709  
High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31764  
Solar cell having improved back surface reflector  
[NASA-CASE-LEW-13620-1] c 44 N83-13579  
Screen printed interdigitated back contact solar cell  
[NASA-CASE-LEW-13414-1] c 44 N83-20374  
High voltage v-groove solar cell  
[NASA-CASE-LEW-13401-2] c 44 N83-32177
- CHAMBERLAIN, F. R.**  
Optical binocular scanning apparatus  
[NASA-CASE-NPO-11002] c 14 N72-22441  
System for forming a quadrified image comprising angularly related fields of view of a three dimensional object  
[NASA-CASE-NPO-14219-1] c 74 N81-17886
- CHAMBERS, A. B.**  
Temperature controller for a fluid cooled garment  
[NASA-CASE-ARC-10599-1] c 05 N73-26071  
Walking boot assembly  
[NASA-CASE-ARC-11101-1] c 54 N78-17675
- CHAMIS, C. C.**  
Hybrid composite laminate structures  
[NASA-CASE-LEW-12118-1] c 24 N77-27188
- CHAN, P. C. F.**  
Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15787-1] c 23 N84-16255
- CHANDLER, J. A.**  
Discrete local altitude sensing device Patent  
[NASA-CASE-XMS-03792] c 14 N70-41812  
Line cutter Patent  
[NASA-CASE-XMS-04072] c 15 N70-42017  
Spacecraft radiator cover Patent  
[NASA-CASE-MSC-12049] c 31 N71-16080  
Winch having cable position and load indicators Patent  
[NASA-CASE-MSC-12052-1] c 15 N71-24599  
Apparatus for releasably connecting first and second objects in predetermined space relationship  
[NASA-CASE-MSC-18969-1] c 18 N84-22605  
Linear motion valve  
[NASA-CASE-MSC-20148-1] c 37 N84-32823
- CHANDLER, W. A.**  
Cryogenic storage system Patent  
[NASA-CASE-XMS-04390] c 31 N70-41871
- CHANEY, R. E.**  
Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229
- CHANG, C. C.**  
Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348
- CHAO, J. I.**  
Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-2] c 52 N81-25661
- CHAPMAN, C. P.**  
Switching circuit Patent  
[NASA-CASE-XNP-06505] c 10 N71-24799  
Peak acceleration limiter for vibrational tester Patent  
[NASA-CASE-NPO-10556] c 14 N71-27185

- Apparatus for recovering matter adhered to a host surface  
[NASA-CASE-NPO-11213] c 15 N73-20514
- Automated attendance accounting system  
[NASA-CASE-NPO-11456] c 08 N73-26176
- Servo-controlled intravital microscope system  
[NASA-CASE-NPO-13214-1] c 35 N75-25123
- CHAPMAN, R. M.**  
Inflation system for balloon type satellites Patent  
[NASA-CASE-XGS-03351] c 31 N71-16081
- CHAPPELLE, E. W.**  
Use of the enzyme hexokinase for the reduction of inherent light levels  
[NASA-CASE-XGS-05533] c 04 N69-27467
- Light detection instrument Patent  
[NASA-CASE-XGS-05534] c 23 N71-16355
- Lyophilized reaction mixtures Patent  
[NASA-CASE-XGS-05532] c 06 N71-17705
- Flavin coenzyme assay  
[NASA-CASE-GSC-10565-1] c 06 N72-25149
- Method of detecting and counting bacteria in body fluids  
[NASA-CASE-GSC-11092-2] c 04 N73-27052
- Protein sterilization method of firefly luciferase using reduced pressure and molecular sieves  
[NASA-CASE-GSC-10225-1] c 06 N73-27086
- Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions  
[NASA-CASE-GSC-11169-2] c 05 N73-32011
- Method of detecting and counting bacteria  
[NASA-CASE-GSC-11917-2] c 51 N76-29891
- Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794
- Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N79-14750
- Rapid, quantitative determination of bacteria in water  
[NASA-CASE-GSC-12158-1] c 51 N83-27569
- CHARLES, J. F.**  
Floating nut retention system  
[NASA-CASE-MSC-16938-1] c 37 N80-23653
- CHARLESTON, A.**  
Chromium electrodes for REDOX cells  
[NASA-CASE-LEW-13653-1] c 44 N84-28205
- CHARLTON, K. W.**  
Pneumatic system for controlling and actuating pneumatic cyclic devices  
[NASA-CASE-XMS-04843] c 03 N69-21469
- CHARNOSKY, A. J.**  
Tool attachment for spreading loose elements away from work Patent  
[NASA-CASE-XMF-02107] c 15 N71-10809
- CHASE, E. W.**  
Helmet latching and attaching ring  
[NASA-CASE-XMS-04670] c 54 N78-17678
- CHASE, W. D.**  
Vehicle simulator binocular multiplanar visual display system  
[NASA-CASE-ARC-10808-1] c 09 N76-24280
- Full color hybrid display for aircraft simulators  
[NASA-CASE-ARC-10903-1] c 09 N78-18083
- Spectrally balanced chromatic landing approach lighting system  
[NASA-CASE-ARC-10990-1] c 04 N82-16059
- Environmental fog/rain visual display system for aircraft simulators  
[NASA-CASE-ARC-11158-1] c 09 N82-24212
- CHEATHAM, D. C.**  
Spacecraft docking and alignment system  
[NASA-CASE-MSC-12559-1] c 18 N76-14186
- CHEN, B. C. J.**  
Waveguide cooling system  
[NASA-CASE-NPO-15401-1] c 32 N83-27085
- CHEN, C. J.**  
Isotope separation using metallic vapor lasers  
[NASA-CASE-NPO-13550-1] c 36 N77-26477
- CHEN, D. Y.**  
Hybrid power semiconductor switch  
[NASA-CASE-LEW-13922-1] c 33 N84-11389
- CHEN, T. S.**  
Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341
- Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744
- CHEN, W.**  
Arterial pulse wave pressure transducer  
[NASA-CASE-GSC-11531-1] c 52 N74-27566
- CHEN, W. S.**  
Wind tunnel microphone structure Patent  
[NASA-CASE-XNP-00250] c 11 N71-28779
- CHENG, C. H.**  
Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744
- CHENG, D. Y.**  
Reversed cow flap inlet thrust augmentor  
[NASA-CASE-ARC-10754-1] c 07 N75-24736
- System for measuring Reynolds in a turbulently flowing fluid  
[NASA-CASE-ARC-10755-2] c 34 N76-27517
- System for measuring three fluctuating velocity components in a turbulently flowing fluid  
[NASA-CASE-ARC-10974-1] c 34 N77-27345
- Noise suppressor for turbo fan jet engines  
[NASA-CASE-ARC-10812-1] c 07 N83-33884
- CHERDAK, A. S.**  
Maximum power point tracker Patent  
[NASA-CASE-GSC-10376-1] c 14 N71-27407
- CHERN, S. S.**  
Chemical vapor deposition reactor  
[NASA-CASE-NPO-13650-1] c 25 N79-28253
- Induced junction solar cell and method of fabrication  
[NASA-CASE-NPO-13786-1] c 44 N80-29835
- CHERNOFF, R.**  
Frequency translating phase conjugation circuit for active retrodirective antenna array  
[NASA-CASE-NPO-14536-1] c 32 N81-14185
- CHERNOFF, R. C.**  
Phase conjugation method and apparatus for an active retrodirective antenna array  
[NASA-CASE-NPO-13641-1] c 32 N79-24210
- CHESTNUTT, D.**  
Variably positioned guide vanes for aerodynamic choking  
[NASA-CASE-LAR-10642-1] c 07 N74-31270
- CHI, K.**  
High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119
- CHIAO, R. Y.**  
Optical frequency waveguide Patent  
[NASA-CASE-HQN-10541-1] c 07 N71-26291
- Optical frequency waveguide and transmission system  
[NASA-CASE-HQN-10541-3] c 23 N72-23695
- CHILDRESS, J. D.**  
Process for the preparation of brushite crystals  
[NASA-CASE-ERC-10338] c 04 N72-33072
- CHILDS, J. H.**  
High-vacuum condenser tank for ion rocket tests Patent  
[NASA-CASE-XLE-00168] c 11 N70-33278
- Electric propulsion engine test chamber Patent  
[NASA-CASE-XLE-00252] c 11 N70-34844
- CHILENSKI, J. J.**  
Ignition system for monopropellant combustion devices Patent  
[NASA-CASE-XNP-00249] c 28 N70-38249
- CHILTON, R. G.**  
Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938
- Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664
- CHIOA, R. Y.**  
Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135
- Optical frequency waveguide and transmission system Patent  
[NASA-CASE-HQN-10541-4] c 16 N71-27183
- CHISEL, D. M.**  
Fluidic proportional thruster system  
[NASA-CASE-ARC-10106-1] c 28 N72-22769
- CHONG, C. F.**  
Flipflop interrogator and bi-polar current driver Patent  
[NASA-CASE-XGS-03058] c 10 N71-19547
- CHOW, E. Y.**  
Elastic universal joint Patent  
[NASA-CASE-XNP-00416] c 15 N70-36947
- CHOWNING, D.**  
Emergency earth orbital escape device Patent  
[NASA-CASE-MSC-13281] c 31 N72-18859
- CHREITZBERG, A. M.**  
Electric battery and method for operating same Patent  
[NASA-CASE-XGS-01674] c 03 N71-29129
- CHRISTENSEN, W. W.**  
Chelate-modified polymers for atmospheric gas chromatography  
[NASA-CASE-ARC-11154-1] c 25 N80-23383
- CHRISTMAN, L. M.**  
Resuscitation apparatus Patent  
[NASA-CASE-XMS-01115] c 05 N70-39922
- CHRISTOPHER, P. A.**  
Method of fabricating an object with a thin wall having a precisely shaped slit  
[NASA-CASE-LAR-10409-1] c 31 N74-21059
- CHRISTY, C. L., JR.**  
Infusible silazane polymer and process for producing same  
[NASA-CASE-XMF-02526-1] c 27 N79-21190
- CHU, H. P.**  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670
- CHU, T. L.**  
Fabrication of polycrystalline solar cells on low-cost substrates  
[NASA-CASE-GSC-12022-1] c 44 N76-28635
- Process for utilizing low-cost graphite substrates for polycrystalline solar cells  
[NASA-CASE-GSC-12022-2] c 44 N78-24609
- CHUBB, D. L.**  
Thermionic-photovoltaic energy converter  
[NASA-CASE-LEW-14077-1] c 44 N84-20918
- CHUMLEY, J. F.**  
Zero gravity apparatus Patent  
[NASA-CASE-XMF-06515] c 14 N71-23227
- CHUTJIAN, A.**  
High resolution threshold photoelectron spectroscopy by electron attachment  
[NASA-CASE-NPO-14078-1] c 72 N80-14877
- CIEPLUCH, C. C.**  
Apparatus for igniting solid propellants Patent  
[NASA-CASE-XLE-00207] c 28 N70-33375
- Method of igniting solid propellants Patent  
[NASA-CASE-XLE-01988] c 27 N71-15634
- CISSELL, R. E.**  
Threadless fastener apparatus Patent  
[NASA-CASE-XFR-05302] c 15 N71-23254
- CISZEK, T. F.**  
Growth of silicon carbide crystals on a seed while pulling silicon crystals from a melt  
[NASA-CASE-NPO-13969-1] c 76 N79-23798
- Method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width  
[NASA-CASE-NPO-14295-1] c 76 N80-32245
- CLAING, R. G.**  
Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338
- CLAPP, W. M.**  
Increasing efficiency of switching type regulator circuits Patent  
[NASA-CASE-XMS-09352] c 09 N71-23316
- CLARK, C. E.**  
Helmet weight simulator  
[NASA-CASE-LAR-12320-1] c 54 N81-27806
- CLARK, F. L.**  
Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925
- Hypersonic test facility Patent  
[NASA-CASE-XLA-05378] c 11 N71-21475
- CLARK, H. K.**  
Thermal pump-compressor for space use Patent  
[NASA-CASE-XLA-00377] c 33 N71-17610
- CLARK, I. O.**  
Ampoule sealing apparatus and process  
[NASA-CASE-LAR-12847-1] c 33 N83-16633
- CLARK, J. R.**  
Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754
- CLARK, K. H.**  
Apparatus for assembling space structure  
[NASA-CASE-MFS-23579-1] c 18 N79-11108
- Electrical self-aligning connector  
[NASA-CASE-MFS-25211-1] c 33 N80-32651
- Pneumatic inflatable end effector  
[NASA-CASE-MFS-23696-1] c 54 N81-26718
- Hemispherical latching apparatus for payload retention  
[NASA-CASE-MFS-25837] c 16 N82-31398
- Apparatus for adapting an end effector device remotely controlled manipulator arm  
[NASA-CASE-MFS-25949-1] c 37 N84-11501
- Electrical self-aligning connector  
[NASA-CASE-MFS-25211-2] c 33 N84-14423
- Clamp-mount device  
[NASA-CASE-MFS-25510-1] c 37 N84-16560
- CLARK, R. K.**  
Fixture for environmental exposure of structural materials under compression load  
[NASA-CASE-LAR-12602-1] c 39 N83-32081
- CLARK, R. L.**  
Deposition apparatus  
[NASA-CASE-LAR-10541-1] c 15 N72-32487
- CLARK, R. T.**  
Horn feed having overlapping apertures Patent  
[NASA-CASE-GSC-10452] c 07 N71-12396
- CLARKE, D. R.**  
Thermal compression bonding of interconnectors  
[NASA-CASE-GSC-10303] c 15 N72-22487
- CLATTERBUCK, C. H.**  
Spacecraft battery seals  
[NASA-CASE-XGS-03864] c 15 N69-24320

- Process for making RF shielded cable connector assemblies and the products formed thereby  
[NASA-CASE-GSC-11215-1] c 09 N73-28083
- High voltage isolation transformer  
[NASA-CASE-GSC-12817-1] c 33 N83-29590
- CLAUS, R. O.**  
A dual differential interferometer  
[NASA-CASE-LAR-12966-1] c 71 N83-12969
- Ultrasonic transducer with Gaussian radial pressure distribution  
[NASA-CASE-LAR-12967-1] c 35 N84-22932
- CLAUSS, R. C.**  
Transmission line thermal short Patent  
[NASA-CASE-XNP-09775] c 09 N71-20445
- Circulator having quarter wavelength resonant post and parametric amplifier circuits utilizing the same Patent  
[NASA-CASE-XNP-02140] c 09 N71-23097
- High-gain, broadband traveling wave maser Patent  
[NASA-CASE-NPO-10548] c 16 N71-24831
- Maser for frequencies in the 7-20 GHz range  
[NASA-CASE-NPO-11437] c 16 N72-28521
- Refrigerated coaxial coupling  
[NASA-CASE-NPO-13504-1] c 33 N75-30430
- Reflected-wave maser  
[NASA-CASE-NPO-13490-1] c 36 N76-31512
- Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures  
[NASA-CASE-NPO-14254-1] c 36 N80-18372
- Resonant isolator for maser amplifier  
[NASA-CASE-NPO-15201-1] c 36 N83-35350
- CLAWSON, G. T.**  
Method and apparatus for checking fire detectors  
[NASA-CASE-GSC-11600-1] c 35 N74-21019
- CLAY, D. R.**  
Ion mass spectrometer  
[NASA-CASE-NPO-15423-1] c 35 N84-28016
- CLAY, F. P., JR.**  
Ionization vacuum gauge with all but the end of the ion collector shielded Patent  
[NASA-CASE-XLA-07424] c 14 N71-18482
- CLELAND, E. L.**  
Gas diffusion liquid storage bag and method of use for storing blood  
[NASA-CASE-NPO-13930-1] c 52 N79-14749
- CLEMENS, G. W., JR.**  
Deep space monitor communication satellite system Patent  
[NASA-CASE-XAC-06028-1] c 31 N71-24813
- CLEMENS, P. W.**  
Device for configuring multiple leads  
[NASA-CASE-MFS-22133-1] c 33 N74-26977
- CLEMENT, W. G.**  
Friction measuring apparatus Patent  
[NASA-CASE-XNP-08880] c 14 N71-22995
- CLEMENTS, P. A.**  
System for stabilizing cable phase delay utilizing a coaxial cable under pressure  
[NASA-CASE-NPO-13138-1] c 33 N74-17927
- CLEMMONS, D. L., JR.**  
Thermal control of space vehicles Patent  
[NASA-CASE-XLA-01291] c 33 N70-36617
- CLEMMONS, J. I., JR.**  
Instrument for determining coincidence and elapse time between independent sources of random sequential events  
[NASA-CASE-LAR-12531-1] c 35 N83-29651
- CLEMONS, J. M.**  
Method of bonding plasticized elastomer to metal and articles produced thereby  
[NASA-CASE-MFS-25181-1] c 27 N82-24340
- Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811
- CLEVELAND, G. J.**  
Medical subject monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757
- CLEVENSON, S. A.**  
Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445
- CLICKNER, R. E., JR.**  
Umbilical disconnect Patent  
[NASA-CASE-XLA-00711] c 03 N71-12258
- CLIFF, R. A.**  
Data processor having multiple sections activated at different times by selective power coupling to the sections Patent  
[NASA-CASE-XGS-04767] c 08 N71-12494
- Ripple add and ripple subtract binary counters Patent  
[NASA-CASE-XGS-04766] c 08 N71-18602
- Apparatus for computing square roots Patent  
[NASA-CASE-XGS-04768] c 08 N71-19437
- Digitally controlled frequency synthesizer Patent  
[NASA-CASE-XGS-02317] c 09 N71-23525
- SCR lamp driver  
[NASA-CASE-GSC-10221-1] c 09 N72-23171
- Digital phase-locked loop  
[NASA-CASE-GSC-11623-1] c 33 N75-25040
- CLIFF, W. C.**  
Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753
- CLINE, R. W.**  
Method and apparatus for optically monitoring the angular position of a rotating mirror  
[NASA-CASE-GSC-11353-1] c 74 N74-21304
- CLOTFELTER, W. N.**  
Apparatus for the determination of the existence or non-existence of a bonding between two members Patent  
[NASA-CASE-MFS-13686] c 15 N71-18132
- Device for measuring the ferrite content in an austenitic stainless-steel weld  
[NASA-CASE-MFS-22907-1] c 26 N76-18257
- Method for measuring biaxial stress in a body subjected to stress inducing loads  
[NASA-CASE-MFS-23299-1] c 39 N77-28511
- CLOUGH, L. G.**  
Driving lamps by induction  
[NASA-CASE-MFS-21214-1] c 09 N73-30181
- CLOYD, R. A.**  
Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860
- Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609
- COBIN, J. C.**  
Latching mechanism Patent  
[NASA-CASE-MSC-15474-1] c 15 N71-26162
- COCCA, F. J.**  
Method and apparatus for detecting surface ions on silicon diodes and transistors  
[NASA-CASE-ERC-10325] c 15 N72-25457
- COE, C. F.**  
Electronic scanning pressure measuring system and transducer package  
[NASA-CASE-ARC-11361-1] c 35 N84-22934
- COE, H. H.**  
High speed rolling element bearing  
[NASA-CASE-LEW-10856-1] c 15 N72-22490
- COE, P. L., JR.**  
Supersonic transport  
[NASA-CASE-LAR-11932-1] c 05 N78-32086
- COFFINBERRY, G. A.**  
Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12830-1] c 07 N77-23106
- Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12321-1] c 37 N78-10487
- Fuel delivery system including heat exchanger means  
[NASA-CASE-LEW-12793-1] c 37 N79-11403
- Apparatus for improving the fuel efficiency of a gas turbine engine  
[NASA-CASE-LEW-13142-1] c 07 N83-36029
- COHEN, D.**  
Fluid sample collector Patent  
[NASA-CASE-XMS-06767-1] c 14 N71-20435
- COHEN, E. A.**  
Audio frequency marker system  
[NASA-CASE-NPO-11147] c 14 N72-27408
- COHEN, M. F.**  
Digital modulator and demodulator Patent  
[NASA-CASE-ERC-10041] c 08 N71-29138
- COHEN, M. M.**  
Elevated waterproof access floor system and method of making the same  
[NASA-CASE-ARC-11363-1] c 31 N83-28281
- Laboratory glassware rack for seismic safety  
[NASA-CASE-ARC-11422-1] c 35 N84-20808
- Space station architecture, module, berthing hub, shell assembly, berthing mechanism and utility connection channel  
[NASA-CASE-ARC-11505-1] c 18 N84-22612
- COHEN, N. S.**  
Nitramine propellants  
[NASA-CASE-NPO-14103-1] c 28 N78-31255
- COHEN, R. A.**  
A method for selective gold diffusion of monolithic silicon devices and/or circuits Patent application  
[NASA-CASE-ERC-10072] c 09 N70-11148
- Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient  
[NASA-CASE-ERC-10073-1] c 24 N74-19769
- COHN, E. M.**  
Rechargeable battery which combats shape change of the zinc anode  
[NASA-CASE-HQN-10862-1] c 44 N76-29699
- COHN, R. B.**  
Acoustical transducer calibrating system and apparatus  
[NASA-CASE-FRC-10060-1] c 14 N73-27379
- Adapter for mounting a microphone flush with the external surface of the skin of a pressurized aircraft  
[NASA-CASE-FRC-11072-1] c 05 N83-27975
- COHN, S. B.**  
Dual band combiner for horn antenna  
[NASA-CASE-NPO-14519-1] c 32 N80-23524
- COKER, L. R.**  
Quick disconnect latch and handle combination Patent  
[NASA-CASE-MFS-11132] c 15 N71-17649
- COLBURN, M. E.**  
Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions  
[NASA-CASE-GSC-11169-2] c 05 N73-32011
- COLE, H. A., JR.**  
Method and apparatus for measuring the damping characteristics of a structure  
[NASA-CASE-ARC-10154-1] c 14 N72-22440
- COLE, M. A.**  
System and method for moving a probe to follow movements of tissue  
[NASA-CASE-NPO-15197-1] c 52 N83-25346
- COLE, P. T.**  
Low friction magnetic recording tape Patent  
[NASA-CASE-XGS-00373] c 23 N71-15978
- System for recording and reproducing pulse code modulated data Patent  
[NASA-CASE-XGS-01021] c 08 N71-21042
- Friction measuring apparatus Patent  
[NASA-CASE-XNP-08680] c 14 N71-22995
- Helical recorder arrangement for multiple channel recording on both sides of the tape  
[NASA-CASE-GSC-10614-1] c 09 N72-11224
- COLEMAN, A. D.**  
Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903
- COLES, W. D.**  
Twisted multifilament superconductor  
[NASA-CASE-LEW-11726-1] c 26 N73-26752
- Method of fabricating a twisted composite superconductor  
[NASA-CASE-LEW-11015] c 26 N73-32571
- COLLIER, L.**  
Garments for controlling the temperature of the body Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147
- COLLIN, E. E.**  
Apparatus and method for skin packaging articles  
[NASA-CASE-MFS-20855] c 15 N73-27405
- COLLINS, D. D.**  
Simultaneous treatment of SO<sub>2</sub> containing stack gases and waste water  
[NASA-CASE-MSC-16258-1] c 45 N79-12584
- COLLINS, D. F., JR.**  
Fluid power transmitting gas bearing Patent  
[NASA-CASE-ERC-10097] c 15 N71-28485
- COLLINS, E. R.**  
Automated multi-level vehicle parking system  
[NASA-CASE-NPO-13058-1] c 37 N77-22480
- Geological assessment probe  
[NASA-CASE-NPO-14558-1] c 46 N80-24906
- System for slicing silicon wafers  
[NASA-CASE-NPO-14406-1] c 37 N80-29703
- COLLINS, E. R., JR.**  
Impact energy absorbing system utilizing fractureable material  
[NASA-CASE-NPO-10671] c 15 N72-20443
- COLLINS, E., JR.**  
High production shuttle car system for coal mines  
[NASA-CASE-NPO-15949-1] c 37 N83-20155
- COLLINS, V. G.**  
Recovery of potable water from human wastes in below-G conditions Patent  
[NASA-CASE-XLA-03213] c 05 N71-11207
- COLLINS, W. A.**  
Flight control system  
[NASA-CASE-MSC-13397-1] c 21 N72-25595
- COLONY, J. A.**  
Phototropic composition of matter  
[NASA-CASE-XGS-03736] c 14 N72-22443
- COMPTON, L. E.**  
Supercritical solvent coal extraction  
[NASA-CASE-NPO-15210-1] c 25 N84-22709
- Oil shale extraction using super-critical extraction  
[NASA-CASE-NPO-15656-1] c 43 N84-23012
- CONANT, J. E.**  
Television simulation for aircraft and space flight Patent  
[NASA-CASE-XFR-03107] c 09 N71-19449
- CONE, C. D., JR.**  
Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-00755] c 01 N71-13410
- Minimum induced drag airfoil body Patent  
[NASA-CASE-XLA-05828] c 01 N71-13411
- Absolute focus lock for microscopes  
[NASA-CASE-LAR-10184] c 14 N72-22445
- Process for control of cell division  
[NASA-CASE-LAR-10773-3] c 51 N77-25769

- CONGER, C. C.**  
Inductance device with vacuum insulation  
[NASA-CASE-LEW-10330-1] c 09 N72-27226
- CONIGLIO, G. V.**  
Petzval type objective including field shaping lens  
Patent  
[NASA-CASE-GSC-10700] c 23 N71-30027
- CONN, J. H.**  
Moment of inertia test fixture Patent  
[NASA-CASE-XGS-01023] c 14 N71-22992
- CONNELL, E. W.**  
Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546
- CONNELLY, D. L.**  
Light transmitting window assembly  
[NASA-CASE-MSC-18417-1] c 74 N84-23251
- CONNOLLY, D. J.**  
Traveling wave tube circuit  
[NASA-CASE-LEW-12013-1] c 33 N79-10339  
Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N80-19425  
Coupled cavity traveling wave tube with velocity tapering  
[NASA-CASE-LEW-12296-1] c 33 N82-26568
- CONNOLLY, J. P.**  
Automatic real-time pair-feeding system for animals  
[NASA-CASE-ARC-10302-1] c 51 N74-15778
- CONNORS, J. F.**  
Annular rocket motor and nozzle configuration Patent  
[NASA-CASE-XLE-00078] c 28 N70-33284  
Annular supersonic decelerator or drogue Patent  
[NASA-CASE-XLE-00222] c 02 N70-37939  
Penshape exhaust nozzle for supersonic engine  
Patent  
[NASA-CASE-XLE-00057] c 28 N70-38711  
Telescoping-spike supersonic inlet for aircraft engines  
Patent  
[NASA-CASE-XLE-00005] c 28 N70-39899  
Thrust and direction control apparatus Patent  
[NASA-CASE-XLE-03583] c 31 N71-17629
- CONRAD, E. W.**  
Thrust vector control apparatus Patent  
[NASA-CASE-XLE-00208] c 28 N70-34294  
Non-reusable kinetic energy absorber Patent  
[NASA-CASE-XLE-00810] c 15 N70-34861
- CONRAD, W. M.**  
Frequency modulation demodulator threshold extension  
device Patent  
[NASA-CASE-MSC-12165-1] c 07 N71-33696
- CONSTANTINIDES, N. J.**  
Servomechanism for Doppler shift compensation in  
optical correlator for synthetic aperture radar  
[NASA-CASE-NPO-14998-1] c 32 N83-18975
- CONSTANTINIDES, N. J.**  
An electro-optical Doppler tracker means and method  
for optical correlation of synthetic aperture radar data  
[NASA-CASE-NPO-14998-1] c 33 N81-15194  
Echo tracker/range finder for radars and sonars  
[NASA-CASE-NPO-14361-1] c 32 N82-23376
- CONWAY, E. J.**  
Method for detecting pollutants  
[NASA-CASE-LAR-11405-1] c 45 N76-31714
- COOGAN, J. M.**  
Method of planetary atmospheric investigation using a  
split-trajectory dual flyby mode Patent  
[NASA-CASE-XAC-08494] c 30 N71-15990
- COOK, C. E.**  
Inflatable device for installing strain gage bridges  
[NASA-CASE-FRC-11068-1] c 35 N84-12443
- COOK, T. A.**  
Metering gun for dispensing precisely measured charges  
of fluid  
[NASA-CASE-MFS-21163-1] c 54 N74-17853
- COOK, W. M., JR.**  
Detector panels-micrometeoroid impact Patent  
[NASA-CASE-XLA-05906] c 31 N71-16221
- COOLIDGE, J. E.**  
Data transfer system Patent  
[NASA-CASE-NPO-12107] c 08 N71-27255
- COON, G. W.**  
Vibrating element electrometer with output signal  
magnified over input signal by a function of the mechanical  
Q of the vibrating element Patent  
[NASA-CASE-XAC-02807] c 09 N71-23021  
Thermally cycled magnetometer Patent  
[NASA-CASE-XAC-03740] c 14 N71-26135  
Trielectrode capacitive pressure transducer  
[NASA-CASE-ARC-10711-2] c 33 N76-21390
- COOPER, C. R.**  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332] c 05 N72-20097  
Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332-2] c 05 N73-25125
- COOPER, D. W.**  
Generator for a space power system Patent  
[NASA-CASE-XLE-04250] c 09 N71-20446  
Method of forming metal hydride films  
[NASA-CASE-LEW-12083-1] c 37 N78-13436
- COOPER, L. P.**  
Supercritical fuel injection system  
[NASA-CASE-LEW-12990-1] c 07 N81-29129
- COOPER, T.**  
Dual physiological rate measurement instrument  
[NASA-CASE-MSC-20078-1] c 52 N82-32971
- COOPER, W. E.**  
Collapsible Apollo couch  
[NASA-CASE-MSC-13140] c 05 N72-11085
- COPELAND, J. T., JR.**  
High speed photo-optical time recording  
[NASA-CASE-KSC-10294] c 14 N72-18411
- CORBIN, P. L.**  
Automatic fatigue test temperature programmer Patent  
[NASA-CASE-XLA-02059] c 33 N71-24276
- CORCORAN, W. H.**  
Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371  
Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15767-1] c 23 N84-16255
- CORLEY, R. C.**  
Method and apparatus for rapid thrust increases in a  
turbofan engine  
[NASA-CASE-LEW-12971-1] c 07 N80-18039
- CORNETT, J. E.**  
Method and apparatus for rapid thrust increases in a  
turbofan engine  
[NASA-CASE-LEW-12971-1] c 07 N80-18039  
Integrated control system for a gas turbine engine  
[NASA-CASE-LEW-12594-2] c 07 N81-19116
- CORNILLE, H. J., JR.**  
Stretch de-spin mechanism Patent  
[NASA-CASE-XGS-00619] c 30 N70-40016
- CORNISH, S. D.**  
Flame detector operable in presence of proton  
radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410
- CORREALE, J. V.**  
Absorbent product to absorb fluids  
[NASA-CASE-MSC-18223-1] c 24 N82-29362  
Absorbent product and articles made therefrom  
[NASA-CASE-MSC-18223-2] c 54 N84-11758
- CORSMEIER, R. J.**  
Air modulation apparatus  
[NASA-CASE-LEW-13524-1] c 07 N84-33410
- CORSON, B. W., JR.**  
Nozzle Patent  
[NASA-CASE-XLA-00154] c 28 N70-33374  
Cascade plug nozzle  
[NASA-CASE-LAR-11674-1] c 07 N78-18117
- CORWIN, R. R.**  
Apparatus for determining thermophysical properties of  
test specimens  
[NASA-CASE-LAR-11883-1] c 09 N77-27131
- COSTAKOS, N. C.**  
Deployable flexible tunnel  
[NASA-CASE-MFS-22636-1] c 37 N76-22540
- COSTEN, R. C.**  
Vortex generator for controlling the dispersion of  
effluents in a flowing liquid  
[NASA-CASE-LAR-12045-1] c 34 N77-24423
- COSTES, N. C.**  
Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420
- COSTOGUE, E. N.**  
Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13652-2] c 44 N79-24431
- COSTON, R. M.**  
Dual solid cryogenics for spacecraft refrigeration Patent  
[NASA-CASE-GSC-10188-1] c 23 N71-24725
- COTE, C. E.**  
Display for binary characters Patent  
[NASA-CASE-XGS-04987] c 08 N71-20571
- COUCH, L. M.**  
Heat pipe cooled probe  
[NASA-CASE-LAR-12588-1] c 44 N81-24525  
Wind tunnel supplementary Mach number minimum  
section insert  
[NASA-CASE-LAR-12532-1] c 09 N82-11088
- COUCH, R. H.**  
Apparatus for aiding a pilot in avoiding a midair collision  
between aircraft  
[NASA-CASE-LAR-10717-1] c 21 N73-30841  
Phase modulating with odd and even finite power series  
of a modulating signal  
[NASA-CASE-LAR-11607-1] c 32 N77-14292  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- COULBERT, C. D.**  
Multislit film cooled pyrolytic graphite rocket nozzle  
Patent  
[NASA-CASE-XNP-04389] c 28 N71-20942
- COULSON, C. E.**  
Active clearance control system for a turbomachine  
[NASA-CASE-LEW-12938-1] c 07 N82-32368
- COULTRIP, R. H.**  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- COUVILLON, L. A., JR.**  
Signal-to-noise ratio estimating by taking ratio of mean  
and standard deviation of integrated signal samples  
Patent  
[NASA-CASE-XNP-05254] c 07 N71-20791  
Method and apparatus for frequency-division multiplex  
communications by digital phase shift of carrier  
[NASA-CASE-NPO-11338] c 08 N72-25208  
Apparatus for deriving synchronizing pulses from pulses  
in a single channel PCM communications system  
[NASA-CASE-NPO-11302-1] c 07 N73-13149  
Pseudonoise (PN) synchronization of data system with  
derivation of clock frequency from received signal for  
clocking receiver PN generator  
[NASA-CASE-XNP-03623] c 09 N73-28084  
Method and apparatus for a single channel digital  
communications system  
[NASA-CASE-NPO-11302-2] c 32 N74-10132
- COWAN, J. J.**  
Holography utilizing surface plasmon resonances  
[NASA-CASE-MFS-22040-1] c 35 N74-26946
- COWDIN, K. T.**  
Aircraft body-axis rotation measurement system  
[NASA-CASE-FRC-11043-1] c 06 N83-33882
- COWELL, T. E.**  
Aerodynamic spike nozzle Patent  
[NASA-CASE-XGS-01143] c 31 N71-15647
- COX, J. A.**  
Analog-to-digital converter  
[NASA-CASE-MSC-13110-1] c 08 N72-22163
- COYNER, J. V.**  
Foldable beam  
[NASA-CASE-LAR-12077-1] c 31 N81-25259
- CRABILL, N. L.**  
Control system for rocket vehicles Patent  
[NASA-CASE-XLA-11163] c 21 N71-15582
- CRAIG, G. D.**  
Optical stereo video signal processor  
[NASA-CASE-MFS-25752-1] c 74 N83-21950  
Wide dynamic range video camera  
[NASA-CASE-MFS-25750-1] c 33 N83-35229
- CRAIG, H. M.**  
Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577
- CRAIG, R. A.**  
Reduction of nitric oxide emissions from a combustor  
[NASA-CASE-ARC-10814-2] c 07 N80-26298
- CRAIGHEAD, N. D.**  
Articulated joint for deployable structures  
[NASA-CASE-NPO-18038-1] c 37 N83-20157
- CRAMER, P. W., JR.**  
Beam forming network  
[NASA-CASE-NPO-15743-1] c 32 N83-19969
- CRAWFORD, D. W.**  
Apparatus and method of inserting a microelectrode in  
body tissue or the like using vibration means  
[NASA-CASE-NPO-13910-1] c 52 N79-27836  
System and method for moving a probe to follow  
movements of tissue  
[NASA-CASE-NPO-15197-1] c 52 N83-25346
- CRAWFORD, R.**  
Solar energy powered heliostope  
[NASA-CASE-GSC-10945-1] c 21 N72-31637
- CRAWFORD, R. F.**  
Foldable beam  
[NASA-CASE-LAR-12077-1] c 31 N81-25259  
Sequentially deployable maneuverable tetrahedral  
beam  
[NASA-CASE-LAR-13088-1] c 31 N83-35178
- CRAWFORD, W. E.**  
Drive circuit for minimizing power consumption in  
inductive load Patent  
[NASA-CASE-NPO-10716] c 09 N71-24892
- CREASY, W. K.**  
Shock absorber Patent  
[NASA-CASE-XMS-03722] c 15 N71-21530
- CREE, D.**  
Amplifier drift tester  
[NASA-CASE-XMS-05562-1] c 09 N69-39986
- CREE, R. F.**  
Catalyst for growth of boron carbide single crystal  
whiskers  
[NASA-CASE-XHQ-03903] c 15 N69-21922
- CREEDON, J. F.**  
Weld-bonded titanium structures  
[NASA-CASE-LAR-11549-1] c 37 N77-11397

## CREEL, T. R., JR.

- Apparatus for determining thermophysical properties of test specimens  
[NASA-CASE-LAR-11883-1] c 09 N77-27131
- Sound shield  
[NASA-CASE-LAR-12883-1] c 71 N83-17235
- CREPEAU, P. C.**  
Flexible, repairable, portable material for electrical connectors Patent  
[NASA-CASE-XGS-05180] c 18 N71-25881
- CRESS, S. B.**  
Coaxial inverted geometry transistor having buried emitter  
[NASA-CASE-ARC-10330-1] c 09 N73-32112
- CRESSEY, J. R.**  
Display for binary characters Patent  
[NASA-CASE-XGS-04987] c 08 N71-20571
- CREWS, J. H., JR.**  
Strain coupled servo control system Patent  
[NASA-CASE-XLA-08530] c 32 N71-25360
- CRIBB, H. E.**  
Parasitic probe antenna Patent  
[NASA-CASE-XKS-09348] c 09 N71-13521
- Weatherproof helix antenna Patent  
[NASA-CASE-XKS-08485] c 07 N71-19493
- VHF/UHF parasitic probe antenna Patent  
[NASA-CASE-XKS-09340] c 07 N71-24614
- Validation device for spacecraft checkout equipment Patent  
[NASA-CASE-XKS-10543] c 07 N71-26292
- Protective suit having an audio transceiver Patent  
[NASA-CASE-KSC-10164] c 07 N71-33108
- Collapsible high gain antenna  
[NASA-CASE-KSC-10392] c 07 N73-26117
- CROFT, R. M.**  
Personal propulsion unit Patent  
[NASA-CASE-MFS-20130] c 28 N71-27585
- CROFTS, D. E.**  
Heat flux sensor assembly  
[NASA-CASE-XMS-05909-1] c 14 N69-27459
- CROONQUIST, A. P.**  
Acoustic rotation control  
[NASA-CASE-NPO-15689-1] c 71 N84-23233
- CROSWELL, W. F.**  
Omnidirectional microwave spacecraft antenna Patent  
[NASA-CASE-XLA-03114] c 09 N71-22888
- Stacked array of omnidirectional antennas  
[NASA-CASE-LAR-10545-1] c 09 N72-21244
- CROUCH, C. E.**  
Coal-rock interface detector  
[NASA-CASE-MFS-23725-1] c 43 N79-31706
- CROUCH, H. W.**  
Shrink-fit gas valve Patent  
[NASA-CASE-XGS-00587] c 15 N70-35087
- CROUCH, R. K.**  
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-26043
- Reusable thermal cycling clamp  
[NASA-CASE-LAR-12868-1] c 27 N82-18390
- CROW, R. B.**  
Wide band doubler and sine wave quadrature generator  
[NASA-CASE-NPO-11133] c 10 N72-20223
- Filter for third order phase locked loops  
[NASA-CASE-NPO-11941-1] c 10 N73-27171
- Frequency discriminator and phase detector circuit  
[NASA-CASE-NPO-11515-1] c 33 N77-13315
- CROWELL, R. T.**  
System and method for refurbishing and processing parachutes  
[NASA-CASE-KSC-11042-2] c 02 N81-26073
- Method for refurbishing and processing parachutes  
[NASA-CASE-KSC-11042-1] c 09 N82-29330
- CRUM, G. W.**  
Foot pedal operated fluid type exercising device  
[NASA-CASE-MSC-11561-1] c 05 N73-32014
- CRUMPLER, J. F.**  
Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575
- CRUMPLER, W. B.**  
All-directional fastener Patent  
[NASA-CASE-XLA-01807] c 15 N71-10799
- Multilegged support system Patent  
[NASA-CASE-XLA-01326] c 11 N71-21481
- CRUTCHER, J. E.**  
Isolation coupling arrangement for a torque measuring system  
[NASA-CASE-XLA-04897] c 15 N72-22482
- CUBBISON, R. W.**  
Thrust and direction control apparatus Patent  
[NASA-CASE-XLE-03583] c 31 N71-17629
- CUBLEY, H. D.**  
Antenna array phase quadrature tracking system Patent  
[NASA-CASE-MSC-12205-1] c 07 N71-27056

## CUDDIHY, E. F.

- Method of making hollow elastomeric bodies  
[NASA-CASE-NPO-13535-1] c 37 N76-31524
- CULLER, V. H.**  
Myocardium wall thickness transducer and measuring method  
[NASA-CASE-NPO-13644-1] c 52 N76-29895
- Catheter tip force transducer for cardiovascular research  
[NASA-CASE-NPO-13643-1] c 52 N76-29896
- Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072
- Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703
- CULOTTA, R. F.**  
Static pressure orifice system testing method and apparatus  
[NASA-CASE-LAR-12269-1] c 35 N80-18358
- CULP, D. H.**  
Process for preparing liquid metal electrical contact device  
[NASA-CASE-LEW-11978-1] c 33 N77-26385
- CUNNINGHAM, H. R.**  
Potable water dispenser  
[NASA-CASE-MFS-21115-1] c 54 N74-12779
- CUNNINGHAM, J. W.**  
Automatic thermal switch  
[NASA-CASE-GSC-12415-1] c 33 N82-24419
- Automatic thermal switch  
[NASA-CASE-GSC-12553-1] c 34 N83-28356
- CUNNINGHAM, R. E.**  
Hydrostatic bearing support  
[NASA-CASE-LEW-11158-1] c 37 N77-28486
- Variable force, eddy-current or magnetic damper  
[NASA-CASE-LEW-13717-1] c 39 N83-20284
- CURREN, A. M.**  
Ion sputter textured graphite  
[NASA-CASE-LEW-12919-1] c 24 N83-10117
- Ion sputter textured graphite electrode plates  
[NASA-CASE-LEW-12919-2] c 70 N84-28565
- CURRIE, J. R.**  
Bi-carrier demodulator with modulation Patent  
[NASA-CASE-XMF-01160] c 07 N71-11298
- Transistor servo system including a unique differential amplifier circuit Patent  
[NASA-CASE-XMF-05195] c 10 N71-24861
- Pulse width inverter Patent  
[NASA-CASE-MFS-10068] c 10 N71-25139
- Ratemeter  
[NASA-CASE-MFS-20418] c 14 N73-24473
- Induction motor control system with voltage controlled oscillator circuit  
[NASA-CASE-MFS-21465-1] c 10 N73-32145
- Contour measurement system  
[NASA-CASE-MFS-23726-1] c 43 N79-26439
- Multi-channel temperature measurement amplification system  
[NASA-CASE-MFS-23775-1] c 44 N82-16474
- Solar energy control system  
[NASA-CASE-MFS-25287-1] c 44 N82-16686
- Photoelectric detection system  
[NASA-CASE-MFS-23776-1] c 33 N82-28545
- CURRIE, R. E., JR.**  
Relay binary circuit Patent  
[NASA-CASE-XMF-00421] c 09 N70-34502
- CURRY, J. E.**  
Method of producing alternating ether siloxane copolymers Patent  
[NASA-CASE-XMF-02584] c 06 N71-20905
- CURRY, K. C.**  
Torsional disconnect unit  
[NASA-CASE-NPO-10704] c 15 N72-20445
- CURRY, R. E.**  
Display research collision warning system  
[NASA-CASE-HQN-10703] c 21 N73-13643
- CURTIS, D. L.**  
Life support system  
[NASA-CASE-MSC-12411-1] c 05 N72-20096
- CYGNAROWICZ, T. A.**  
System for and method of freezing biological tissue  
[NASA-CASE-GSC-12173-1] c 51 N79-10694
- CZARCINSKI, E. A.**  
Programmable telemetry system Patent  
[NASA-CASE-GSC-10131-1] c 07 N71-24624

## D

## DABNEY, R. W.

- Power control for ac motor  
[NASA-CASE-MFS-25862] c 33 N83-28329
- DAEGES, J. J.**  
Motor run-up system  
[NASA-CASE-NPO-13374-1] c 33 N75-19524

## DAHM, W. K.

- Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028
- Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493
- Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753
- DAILED, J. J.**  
Multi-purpose wind tunnel reaction control model block  
[NASA-CASE-MSC-19706-1] c 09 N78-31129
- DAILEY, C. C.**  
Microwave power receiving antenna Patent  
[NASA-CASE-MFS-20333] c 09 N71-13486
- Method of and means for testing a glancing-incidence mirror system of an X-ray telescope  
[NASA-CASE-MFS-22409-2] c 74 N78-15880
- DALE, W. J.**  
Method of fabricating an article with cavities  
[NASA-CASE-LAR-10318-1] c 31 N74-18089
- Bonding method in the manufacture of continuous regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260
- DALELIO, G. F.**  
Synthesis of polymeric schiff bases by schiff-base exchange reactions Patent  
[NASA-CASE-XMF-08651] c 06 N71-11236
- Direct synthesis of polymeric schiff bases from two amines and two aldehydes Patent  
[NASA-CASE-XMF-08655] c 06 N71-11239
- Azine polymers and process for preparing the same Patent  
[NASA-CASE-XMF-08656] c 06 N71-11242
- Synthesis of polymeric schiff bases by reaction of acetals and amine compounds Patent  
[NASA-CASE-XMF-08652] c 06 N71-11243
- Aromatic diamine-aromatic dialdehyde high molecular weight Schiff base polymers prepared in a monofunctional Schiff base Patent  
[NASA-CASE-XMF-03074] c 06 N71-24740
- DALY, W. M.**  
Fault tolerant clock apparatus utilizing a controlled minority of clock elements  
[NASA-CASE-MSC-12531-1] c 35 N75-30504
- DAME, J. M.**  
High-torque open-end wrench  
[NASA-CASE-NPO-13541-1] c 37 N79-14383
- DAMERON, C. E.**  
Instrument for measuring potentials on two dimensional electric field plots Patent  
[NASA-CASE-XLA-08493] c 10 N71-19421
- DAMMIG, A. H., JR.**  
Capacitive tank gaging apparatus being independent of liquid distribution  
[NASA-CASE-MFS-21629] c 14 N72-22442
- DANCHENKO, V.**  
Radiation hardening of MOS devices by boron  
[NASA-CASE-GSC-11425-1] c 76 N74-20329
- Radiation hardening of MOS devices by boron  
[NASA-CASE-GSC-11425-2] c 76 N75-25730
- DANE, D. H.**  
Harness assembly Patent  
[NASA-CASE-MFS-14671] c 05 N71-12341
- Air cushion lift pad Patent  
[NASA-CASE-MFS-14685] c 31 N71-15689
- Ratchet mechanism Patent  
[NASA-CASE-MFS-12805] c 15 N71-17805
- Mechanical simulator of low gravity conditions Patent  
[NASA-CASE-MFS-10555] c 11 N71-19494
- Mechanically actuated triggered hand  
[NASA-CASE-MFS-20413] c 15 N72-21463
- Sprag solenoid brake  
[NASA-CASE-MFS-21846-1] c 37 N74-26976
- Orthotic arm joint  
[NASA-CASE-MFS-21611-1] c 54 N75-12616
- Remote manipulator system  
[NASA-CASE-MFS-22022-1] c 37 N76-15460
- DANELIS, J. V.**  
Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-1] c 52 N81-29764
- DANGLE, E. E.**  
Rocket engine Patent  
[NASA-CASE-XLE-00342] c 28 N70-37980
- DANIELS, A.**  
Stirling cycle cryogenic cooler  
[NASA-CASE-GSC-12697-1] c 31 N82-11312
- Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574
- DANIELS, H. J.**  
Adaptive tracking notch filter system Patent  
[NASA-CASE-XMF-01892] c 10 N71-22986
- DANSKIN, J. H.**  
Fuel injection pump for internal combustion engines Patent  
[NASA-CASE-MSC-12139-1] c 28 N71-14058

- DARCEY, R. J.**  
Satellite communication system and method Patent  
[NASA-CASE-GSC-10118-1] c 07 N71-24621
- DARGO, D.**  
Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360
- DARR, J., JR.**  
Threadless fastener apparatus Patent  
[NASA-CASE-XFR-05302] c 15 N71-23254
- DARROW, W. E., JR.**  
Collapsible nozzle extension for rocket engines Patent  
[NASA-CASE-MFS-11497] c 28 N71-16224
- DASGUPTA, K.**  
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer  
[NASA-CASE-XNP-05231] c 14 N73-28491
- DASTOOR, M. N.**  
Enhancement of in vitro guayule propagation  
[NASA-CASE-NPO-15213-1] c 51 N83-17045
- DAUD, T.**  
Copper doped polycrystalline silicon solar cell  
[NASA-CASE-NPO-14670-1] c 44 N81-19558  
Method for growing low defect, high purity crystalline layers  
[NASA-CASE-NPO-15813-1] c 76 N83-30269  
A new solar cell design for improved open circuit voltage and high efficiency  
[NASA-CASE-NPO-16126-1] c 44 N84-32911
- DAVID-MALIG, M. A.**  
Method and tool for machining a transverse slot about a bore  
[NASA-CASE-LAR-11855-1] c 37 N81-14319
- DAVID, R. M.**  
Insulated electrocardiographic electrodes  
[NASA-CASE-MS-C-14339-1] c 05 N75-24716
- DAVIDS, L. H.**  
Guidance and maneuver analyzer Patent  
[NASA-CASE-XNP-09572] c 14 N71-15621
- DAVIDSON, A. C.**  
Spacecraft attitude sensor  
[NASA-CASE-GSC-10890-1] c 21 N73-30640
- DAVIDSON, G. A.**  
Compact spectroradiometer  
[NASA-CASE-HQN-10683] c 14 N71-34389
- DAVIDSON, J. K.**  
Ripple indicator  
[NASA-CASE-KSC-10162] c 09 N72-11225
- DAVIDSON, J. R.**  
Error correction method and apparatus for electronic timepieces  
[NASA-CASE-LAR-12654-1] c 33 N83-36357
- DAVIDSON, J. S. W.**  
Centrifuge mounted motion simulator Patent  
[NASA-CASE-XAC-00399] c 11 N70-34815
- DAVIES, W. D. T.**  
Correlation type phase detector  
[NASA-CASE-GSC-11744-1] c 33 N75-26243
- DAVIS, A. J.**  
Fiber optic vibration transducer and analyzer Patent  
[NASA-CASE-XMF-02433] c 14 N71-10616
- DAVIS, B. K.**  
Spectral method for monitoring atmospheric contamination of inert-gas welding shields Patent  
[NASA-CASE-XMF-02039] c 15 N71-15871  
Stud-bonding gun  
[NASA-CASE-MFS-20299] c 15 N72-11392  
Solar energy power system  
[NASA-CASE-MFS-21628-1] c 44 N75-32581  
Solar energy power system  
[NASA-CASE-MFS-21628-2] c 44 N76-23675
- DAVIS, D. C.**  
Fatigue failure load indicator  
[NASA-CASE-LAR-12027-1] c 39 N79-22537
- DAVIS, D. P.**  
Quick disconnect coupling  
[NASA-CASE-NPO-11202] c 15 N72-25450
- DAVIS, E. J.**  
Cable stabilizer for open shaft cable operated elevators  
[NASA-CASE-KSC-10513] c 15 N72-25453
- DAVIS, E. S.**  
Anti-glare improvement for optical imaging systems Patent  
[NASA-CASE-NPO-10337] c 14 N71-15604  
Radiant energy intensity measurement system Patent  
[NASA-CASE-XNP-06510] c 14 N71-23797  
Reference voltage switching unit  
[NASA-CASE-NPO-11253] c 09 N72-17157
- DAVIS, J. G., JR.**  
Tube fabricating process  
[NASA-CASE-LAR-10203-1] c 15 N72-16330
- DAVIS, J. P.**  
Multiducted electromagnetic pump Patent  
[NASA-CASE-NPO-10755] c 15 N71-27084  
Shell side liquid metal boiler  
[NASA-CASE-NPO-10831] c 33 N72-20915  
Uninsulated in-core thermionic diode  
[NASA-CASE-NPO-10542] c 09 N72-27228
- DAVIS, J. W.**  
Burst diaphragm flow initiator Patent  
[NASA-CASE-MFS-12915] c 11 N71-17600  
Wind tunnel test section  
[NASA-CASE-MFS-20509] c 11 N72-17183  
Altitude simulation chamber for rocket engine testing  
[NASA-CASE-MFS-20620] c 11 N72-27262
- DAVIS, L. P.**  
Isolation coupling arrangement for a torque measuring system  
[NASA-CASE-XLA-04897] c 15 N72-22482
- DAVIS, N. S.**  
Decomposition unit Patent  
[NASA-CASE-XMS-00583] c 28 N70-38504
- DAVIS, R. C.**  
Daze fasteners  
[NASA-CASE-LAR-13009-1] c 37 N83-29706  
Curved cap corrugated sheet  
[NASA-CASE-LAR-12884-1] c 18 N84-33450
- DAVIS, W. T.**  
Strain coupled servo control system Patent  
[NASA-CASE-XLA-06530] c 32 N71-25360  
Fatigue failure load indicator  
[NASA-CASE-LAR-12027-1] c 39 N79-22537  
Missile rolling tail brake torque system  
[NASA-CASE-LAR-12751-1] c 15 N84-16231  
A system for controlling the oxygen content of a gas produced by combustion  
[NASA-CASE-LAR-13257-1] c 25 N84-32447
- DAVISON, E. H.**  
Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent  
[NASA-CASE-XLE-01246] c 14 N71-10797
- DAVISON, H. W.**  
Gaseous control system for nuclear reactors  
[NASA-CASE-XLE-04599] c 22 N72-20597
- DAWN, F. S.**  
Burn rate testing apparatus  
[NASA-CASE-XMS-09690] c 33 N72-25913  
Lightweight electrically-powered flexible thermal laminate  
[NASA-CASE-MS-C-12662-1] c 33 N79-12331  
Absorbent product to absorb fluids  
[NASA-CASE-MS-C-18223-1] c 24 N82-29362  
Absorbent product and articles made therefrom  
[NASA-CASE-MS-C-18223-2] c 54 N84-11758
- DAY, J. L.**  
Electrode for biological recording  
[NASA-CASE-XMS-02872] c 05 N69-21925  
Pressed disc type sensing electrodes with ion-screening means Patent  
[NASA-CASE-XMS-04212-1] c 05 N71-12346  
Method of making a perspiration resistant biopotential electrode  
[NASA-CASE-MS-C-90153-2] c 05 N72-25120
- DAY, R. M.**  
Portable pallet weight apparatus  
[NASA-CASE-GSC-12789-1] c 35 N83-13425
- DAYAN, V. H.**  
Hydrogen leak detection device Patent  
[NASA-CASE-MFS-11537] c 14 N71-20442
- DEA, J. Y.**  
Constant-output atomizer  
[NASA-CASE-MFS-25631-1] c 34 N84-12406
- DEADMORE, D. L.**  
Method of protecting a surface with a silicon-slurry/aluminide coating  
[NASA-CASE-LEW-13343-1] c 27 N82-28441  
Silicon-slurry/aluminide coating  
[NASA-CASE-LEW-13343] c 26 N83-31795
- DEATON, E. T., JR.**  
Contour measurement system  
[NASA-CASE-MFS-23726-1] c 43 N79-26439
- DEBNAM, W. J. J.**  
Magnetometer with a miniature transducer and automatic scanning  
[NASA-CASE-LAR-11617-2] c 35 N78-32397
- DEBNAM, W. J., JR.**  
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-26043  
Reusable thermal cycling clamp  
[NASA-CASE-LAR-12868-1] c 27 N82-18390  
Ampoule sealing apparatus and process  
[NASA-CASE-LAR-12847-1] c 33 N83-16633
- DEBOO, G. J.**  
Gyrator type circuit Patent  
[NASA-CASE-XAC-10608-1] c 09 N71-12517
- Feedback integrator with grounded capacitor Patent  
[NASA-CASE-XAC-10607] c 10 N71-23669  
Precision rectifier with FET switching means Patent  
[NASA-CASE-ARC-10101-1] c 09 N71-33109  
Phase shift circuit apparatus  
[NASA-CASE-ARC-10269-1] c 10 N72-16172  
Temperature compensated light source using a light emitting diode  
[NASA-CASE-ARC-10467-1] c 09 N73-14214  
Self-tuning bandpass filter  
[NASA-CASE-ARC-10264-1] c 09 N73-20231  
Test apparatus for locating shorts during assembly of electrical buses  
[NASA-CASE-ARC-11116-1] c 33 N82-24420
- DECARLO, F. S.**  
Failure detection and control means for improved drift performance of a gimbaled platform system  
[NASA-CASE-MFS-23551-1] c 04 N76-26175
- DECKER, A. J.**  
High powered arc electrodes  
[NASA-CASE-LEW-11162-1] c 33 N74-12913
- DEDOLPH, R. D.**  
Rotary plant growth accelerating apparatus  
[NASA-CASE-ARC-10722-1] c 51 N75-25503
- DEERKOSKI, L. F.**  
Signal-to-noise ratio determination circuit  
[NASA-CASE-GSC-11239-1] c 10 N73-25241  
Switchable beamwidth monopulse method and system  
[NASA-CASE-GSC-11924-1] c 33 N76-27472  
Pseudo noise code and data transmission method and apparatus  
[NASA-CASE-GSC-12017-1] c 32 N77-30308
- DEFURIA, R. R.**  
Fluid power transmitting gas bearing Patent  
[NASA-CASE-ERC-10097] c 15 N71-28465
- DEGEER, M. D.**  
Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692
- DEGRASSE, R. W.**  
Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550
- DEIS, B. C.**  
Traveling sealer for contoured table Patent  
[NASA-CASE-XLA-01494] c 15 N71-24164
- DEL CASALE, L. A.**  
Signal generator  
[NASA-CASE-XNP-05612] c 09 N69-21468
- DEL CURTO, B.**  
System for monitoring the presence of neutrals in a stream of ions Patent  
[NASA-CASE-XNP-02592] c 24 N71-20518
- DEL DUCA, A.**  
Electronic divider and multiplier using photocells Patent  
[NASA-CASE-XFR-05637] c 09 N71-19480
- DELANO, C. B.**  
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles  
[NASA-CASE-ARC-11008-1] c 27 N78-31232
- DELAPLAIN, R. W.**  
Rotary leveling base platform  
[NASA-CASE-ARC-10981-1] c 37 N78-27425  
Sweat collection capsule  
[NASA-CASE-ARC-11031-1] c 52 N81-29763
- DELAURE, L. A.**  
Emergency earth orbital escape device  
[NASA-CASE-MS-C-13281] c 31 N72-18859
- DELGREGO, D. J.**  
Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028
- DELUCA, J. J.**  
Segmented superconducting magnet for a broadband traveling wave maser Patent  
[NASA-CASE-XGS-10518] c 16 N71-28554  
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-1] c 37 N75-15992  
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide  
[NASA-CASE-GSC-11577-3] c 24 N79-25143
- DELVIGS, P.**  
Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids  
[NASA-CASE-LEW-11325-1] c 06 N73-27980  
Curing agent for polyepoxides and epoxy resins and composites cured therewith  
[NASA-CASE-LEW-13226-1] c 27 N81-17260  
Composition and method for making polyimide resin-reinforced fabric  
[NASA-CASE-LEW-12933-1] c 27 N81-19296  
Low temperature cross linking polyimides  
[NASA-CASE-LEW-12876-2] c 27 N83-29392
- DEMING, J. W.**  
Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N79-14750



Rapid, quantitative determination of bacteria in water  
[NASA-CASE-GSC-12158-1] c 51 N83-27569

**DEMOGENES, C.**  
Low cycle fatigue testing machine  
[NASA-CASE-LAR-10270-1] c 32 N72-25877

**DEMOREST, K. E.**  
Self-lubricating gears and other mechanical parts  
Patent  
[NASA-CASE-MFS-14971] c 15 N71-24984

**DEMPSEY, T. K.**  
Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445

**DENACI, D. E.**  
Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02184] c 15 N71-20813

**DENEFF, D. E.**  
Television camera video level control system  
[NASA-CASE-MSC-18578-1] c 74 N82-27121

**DENNIS, D. V.**  
Aircraft control position indicator  
[NASA-CASE-LAR-12984-1] c 06 N84-20522

**DEO, N.**  
Dual purpose momentum wheels for spacecraft with  
magnetic recording  
[NASA-CASE-NPO-11481] c 21 N73-13644

**DERING, V. G.**  
Vortex breech high pressure gas generator  
[NASA-CASE-LAR-10549-1] c 31 N73-13898

**DEER, L. J.**  
Direct radiation cooling of the collector of linear beam  
tubes  
[NASA-CASE-XNP-09227] c 15 N69-24319  
Temperature-compensating means for cavity resonator  
of amplifier Patent  
[NASA-CASE-XNP-00449] c 14 N70-35220  
Electron beam tube containing a multiple cathode array  
employing indexing means for cathode substitution  
Patent  
[NASA-CASE-NPO-10625] c 09 N71-26182  
Thermostatic actuator  
[NASA-CASE-NPO-10637] c 15 N72-12409  
Thermal motor  
[NASA-CASE-NPO-11283] c 09 N72-25260  
Electrostatically controlled heat shutter  
[NASA-CASE-NPO-11942-1] c 33 N73-32818

**DESCAMP, V. A.**  
Filter regeneration systems  
[NASA-CASE-MSC-14273-1] c 34 N75-33342

**DESTESE, J. G.**  
Thermionic tantalum emitter doped with oxygen Patent  
Application  
[NASA-CASE-NPO-11138] c 03 N70-34646

**DETLING, J. R.**  
Retractable environmental seal  
[NASA-CASE-MFS-23646-1] c 37 N79-22474

**DETWIELER, H. K.**  
High isolation RF signal selection switches  
[NASA-CASE-NPO-13081-1] c 33 N74-22814

**DEVINE, D. L.**  
Test apparatus for locating shorts during assembly of  
electrical buses  
[NASA-CASE-ARC-11116-1] c 33 N82-24420

**DEVINE, E. J.**  
Optical tracker having overlapping reticles on parallel  
axes Patent  
[NASA-CASE-XGS-05715] c 23 N71-16100

**DEWHIRST, D. L.**  
Deformable vehicle wheel Patent  
[NASA-CASE-MFS-20400] c 31 N71-18611

**DEWITT, R. L.**  
Fluid coupling Patent  
[NASA-CASE-XLE-00397] c 15 N70-36492

**DEYOUNG, R. J.**  
Volumetric direct nuclear pumped laser  
[NASA-CASE-LAR-12183-1] c 36 N79-18307  
Large volume multiple-path nuclear pumped laser  
[NASA-CASE-LAR-12592-1] c 36 N82-13415

**DI LOSA, V. J.**  
Diversity receiving system with diversity phase lock  
Patent  
[NASA-CASE-XGS-01222] c 10 N71-20841

**DIAMOND, D. D.**  
Stator rotor tools  
[NASA-CASE-MSC-16000-1] c 37 N78-24544

**DIAMOND, R. M.**  
Central spar and module joint Patent  
[NASA-CASE-XNP-02341] c 15 N71-21531

**DIBATTISTA, J. D.**  
Determining particle density using known material  
Hugoniot curves  
[NASA-CASE-LAR-11059-1] c 76 N75-12810  
Meteoroid impact position locator aid for manned space  
station  
[NASA-CASE-LAR-10629-1] c 35 N75-33367

**DICARLO, J. A.**  
Method and apparatus for strengthening boron fibers  
[NASA-CASE-LEW-13826-1] c 24 N82-26385  
Method for strengthening boron fibers  
[NASA-CASE-LEW-13826-2] c 24 N84-24711

**DICKENS, L. E.**  
Millimeter wave pumped parametric amplifier  
[NASA-CASE-GSC-11617-1] c 33 N74-32660

**DICKERSON, G. E.**  
Composite lamination method  
[NASA-CASE-LAR-12019-1] c 24 N78-17150

**DICKINSON, R. M.**  
Thin conformal antenna array for microwave power  
conversions  
[NASA-CASE-NPO-13886-1] c 32 N78-24391  
RF beam center location method and apparatus for  
power transmission system  
[NASA-CASE-NPO-13821-1] c 44 N78-28594  
Microwave power transmission beam safety system  
[NASA-CASE-NPO-14224-1] c 33 N80-18287

**DIETRICH, F. J.**  
Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860

**DILL, W. P.**  
Method and automated apparatus for detecting coliform  
organisms  
[NASA-CASE-MSC-16777-1] c 51 N80-27067

**DILLARD, P. A.**  
Method of fabricating a photovoltaic module of a  
substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550

**DILLON, R. F., JR.**  
Shock absorbing mount for electrical components  
[NASA-CASE-NPO-13253-1] c 37 N75-18573

**DIMEFF, J.**  
Cryogenic apparatus for measuring the intensity of  
magnetic fields  
[NASA-CASE-XAC-02407] c 14 N69-27423  
Apparatus for coupling a plurality of ungrounded circuits  
to a grounded circuit Patent  
[NASA-CASE-XAC-00086] c 09 N70-33182  
Two-plane balance Patent  
[NASA-CASE-XAC-00073] c 14 N70-34813  
Differential pressure cell Patent  
[NASA-CASE-XAC-00042] c 14 N70-34816  
High speed low level electrical stepping switch Patent  
[NASA-CASE-XAC-00060] c 09 N70-39915  
Dynamic sensor Patent  
[NASA-CASE-XAC-02877] c 14 N70-41681  
Electrostatic charged particle analyzer having deflection  
members shaped according to the periodic voltage applied  
thereto Patent  
[NASA-CASE-XAC-05506-1] c 24 N71-16095  
Inertial reference apparatus Patent  
[NASA-CASE-XAC-03107] c 23 N71-16098  
Thermal detector of electromagnetic energy by means  
of a vibrating electrode Patent  
[NASA-CASE-XAC-10768] c 09 N71-18830  
Vibrating element electrometer with output signal  
magnified over input signal by a function of the mechanical  
Q of the vibrating element Patent  
[NASA-CASE-XAC-02807] c 09 N71-23021  
Wide range dynamic pressure sensor  
[NASA-CASE-ARC-10263-1] c 14 N72-22438  
Nondispersive gas analyzing method and apparatus  
wherein radiation is serially passed through a reference  
and unknown gas  
[NASA-CASE-ARC-10308-1] c 06 N72-31141  
Chromato-fluorographic drug detector  
[NASA-CASE-ARC-10633-1] c 25 N74-26947  
Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-3] c 33 N75-19520  
Diode-quad bridge circuit means  
[NASA-CASE-ARC-10364-2] c 33 N75-25041  
NDIR gas analyzer based on absorption modulation  
ratios for known and unknown samples  
[NASA-CASE-ARC-10802-1] c 35 N75-30502  
Modulated hydrogen ion flame detector  
[NASA-CASE-ARC-10322-1] c 35 N76-18403  
Method and apparatus for compensating reflection  
losses in a path length modulated absorption-absorption  
trace gas detector  
[NASA-CASE-ARC-10631-1] c 74 N76-20958  
Nulling device for detection of trace gases by NDIR  
absorption  
[NASA-CASE-ARC-10760-1] c 25 N76-22323  
Integrated structure vacuum tube  
[NASA-CASE-ARC-10445-1] c 31 N76-31365  
Optically selective, acoustically resonant gas detecting  
transducer  
[NASA-CASE-ARC-10639-1] c 35 N78-13400

**DIX, M. G.**  
Demodulation system Patent  
[NASA-CASE-XAC-04030] c 10 N71-19472

**DIXON, D. S.**  
Device and method for frictionally testing materials for  
ignitability  
[NASA-CASE-MSC-20622-1] c 14 N84-22596

**DIXON, G. V.**  
Active vibration isolator for flexible bodies Patent  
[NASA-CASE-LAR-10106-1] c 15 N71-27169

**DOBIES, E. F.**  
Cyclically operable optical shutter  
[NASA-CASE-NPO-10758] c 14 N73-14427

**DOD, L. R.**  
Plural beam antenna  
[NASA-CASE-GSC-11013-1] c 09 N73-19234

**DOGGETT, R. V., JR.**  
Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12458-1] c 44 N83-21503  
Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12720-1] c 44 N83-21504

**DOLAND, G. D.**  
Method and apparatus for decoding compatible  
convolutional codes  
[NASA-CASE-MSC-14070-1] c 32 N74-32598  
Phased array antenna control  
[NASA-CASE-MSC-14939-1] c 32 N79-11264  
Random digital encryption secure communication  
system  
[NASA-CASE-MSC-16462-1] c 32 N82-31583

**DOLLAND, C. R.**  
Combinational logic for generating gate drive signals for  
phase control rectifiers  
[NASA-CASE-MFS-25208-1] c 33 N83-10345  
Adaptive reference voltage generator for firing angle  
control of line-commutated inverters  
[NASA-CASE-MFS-25215-1] c 33 N83-31953  
Adaptive control system for line-commutated inverters  
[NASA-CASE-MFS-25209-1] c 33 N83-35227

**DOLLYHIGH, S. M.**  
Metric half-span model support system  
[NASA-CASE-LAR-12441-1] c 09 N82-23254

**DOMACK, C. S.**  
Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092

**DOMAS, P. A.**  
Redundant disc  
[NASA-CASE-LEW-12496-1] c 07 N78-33101

**DOMBROWSKI, H. G.**  
Adjustable tension wire guide Patent  
[NASA-CASE-XMS-02383] c 15 N71-15918

**DONALDSON, R. W., JR.**  
Gas chromatograph injection system  
[NASA-CASE-ARC-10344-2] c 35 N75-26334

**DONNELLY, P. C.**  
Prevention of pressure build-up in electrochemical cells  
Patent  
[NASA-CASE-XGS-01419] c 03 N70-41864

**DONNINI, J. M.**  
Hydrogen fire blink detector  
[NASA-CASE-MFS-15063] c 14 N72-25412

**DONOHUE, J. H.**  
Passive dual spin misalignment compensators  
[NASA-CASE-GSC-11479-1] c 35 N74-28097  
Active nutation controller  
[NASA-CASE-GSC-12273-1] c 35 N80-21719

**DONOVAN, B. P.**  
Artificial gravity spin deployment system Patent  
[NASA-CASE-XNP-02595] c 31 N71-21881

**DONOVAN, G.**  
Drying apparatus for photographic sheet material  
[NASA-CASE-GSC-11074-1] c 14 N73-28489

**DONOVAN, R. P.**  
Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N76-22509

**DOONG, H.**  
Analog to digital converter Patent  
[NASA-CASE-XLA-00670] c 08 N71-12501  
Controllable high voltage source having fast settling  
time  
[NASA-CASE-GSC-11844-1] c 33 N75-19522

**DORNE, A.**  
Nose cone mounted heat resistant antenna Patent  
[NASA-CASE-XMS-04312] c 07 N71-22984

**DOTSON, W. P., JR.**  
Digital to analog conversion apparatus  
[NASA-CASE-MSC-12458-1] c 08 N73-32081

**DOTTS, R. L.**  
Thermal insulation protection means  
[NASA-CASE-MSC-12737-1] c 24 N79-25142  
Attachment system for silica tiles  
[NASA-CASE-MSC-18741-1] c 27 N82-29456  
High temperature silicon carbide impregnated insulating  
fabrics  
[NASA-CASE-MSC-18832-1] c 27 N83-18908

**DOUGHERTY, H. B.**  
Rotary solenoid shutter drive assembly and rotary inertia  
damper and stop plate assembly  
[NASA-CASE-GSC-11560-1] c 33 N74-20861

- DOUGHTY, R. A.**  
Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244
- DOUGLAS, J.**  
Process of casting heavy slips Patent  
[NASA-CASE-XLE-00106] c 15 N71-16076
- DOUGLAS, J. L.**  
Maximum power point tracker Patent  
[NASA-CASE-XGS-10376-1] c 14 N71-27407
- DOW, M. B.**  
Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575
- DOW, N. F.**  
Two component bearing Patent  
[NASA-CASE-XLA-00013] c 15 N71-29136
- DOWLER, W. L.**  
Solid propellant rocket motor nozzle  
[NASA-CASE-NPO-11458] c 28 N72-23810  
Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784  
Seismic vibration source  
[NASA-CASE-NPO-14112-1] c 46 N79-22679
- DOWNING, R. G.**  
Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13652-2] c 44 N79-24431
- DOWNS, W. R.**  
Transpirationally cooled heat ablation system Patent  
[NASA-CASE-XMS-02677] c 31 N70-42075  
Method for obtaining oxygen from lunar or similar soil  
[NASA-CASE-MS-C-12408-1] c 46 N74-13011
- DOYLE, J. C.**  
Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233
- DRAPEAU, D. F.**  
Slow opening valve  
[NASA-CASE-MS-C-20112-1] c 37 N82-28641
- DREIBACH, F. W.**  
Film advance indicator  
[NASA-CASE-LAR-12474-1] c 35 N82-26628
- DRESHFIELD, R. L.**  
Cobalt-base alloy  
[NASA-CASE-LEW-10436-1] c 17 N73-32415
- DRESSER, H. S.**  
Multi-purpose wind tunnel reaction control model block  
[NASA-CASE-MS-C-19706-1] c 09 N78-31129
- DREXHAGE, M. G.**  
Injection head for delivering liquid fuel and oxidizers  
[NASA-CASE-NPO-10046] c 28 N72-17843
- DREYFUS, M. G.**  
Wedge immersed thermistor bolometers  
[NASA-CASE-XGS-01245-1] c 35 N79-33449
- DRISCOLL, K. L.**  
Means for accommodating large overstrain in lead wires  
[NASA-CASE-LAR-10168-1] c 33 N74-22865
- DROST, E. J.**  
Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443
- DRUMMOND, A. S.**  
Flexible back-up bar Patent  
[NASA-CASE-XMF-00722] c 15 N70-40204
- DU PONT, P. S.**  
Solar panel fabrication Patent  
[NASA-CASE-XNP-03413] c 03 N71-26726
- DUBEY, M.**  
Central spar and module joint Patent  
[NASA-CASE-XNP-02341] c 15 N71-21531
- DUBOIS, R. D.**  
Guide for a typewriter  
[NASA-CASE-MFS-15218-1] c 37 N77-19457
- DUBUSKER, W.**  
Apparatus for welding sheet material  
[NASA-CASE-XMS-01330] c 37 N75-27376
- DUCKETT, J.**  
Variable anodic thermal control coating  
[NASA-CASE-LAR-12719-1] c 44 N83-34449
- DUFFY, J. O.**  
Minimal logic block encoder Patent  
[NASA-CASE-NPO-10595] c 10 N71-25917
- DUFRESNE, E. R.**  
Tower evaporator  
[NASA-CASE-NPO-15609-1] c 25 N83-36119
- DUNAETZ, R. A.**  
Flexible, repairable, portable material for electrical connectors Patent  
[NASA-CASE-XGS-05180] c 18 N71-25881
- DUNAVANT, J. C.**  
Hot air balloon deceleration and recovery system Patent  
[NASA-CASE-XLA-06824-2] c 02 N71-11037
- DUNN, J. G.**  
Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149
- DUNN, J. H.**  
Foldable conduit Patent  
[NASA-CASE-XLE-00620] c 32 N70-41579
- DUNN, S. A.**  
Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568
- DUNN, S. T.**  
Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent  
[NASA-CASE-XGS-05291] c 23 N71-16341
- DUNN, T. J.**  
Pre-stressed thermal protection systems  
[NASA-CASE-MS-C-20254-1] c 16 N84-22601
- DUNN, W. F.**  
Water separator  
[NASA-CASE-XMS-01295-1] c 37 N79-21345
- DUNN, W. R.**  
Coaxial inverted geometry transistor having buried emitter  
[NASA-CASE-ARC-10330-1] c 09 N73-32112
- DUNNAVANT, W. R.**  
Process for preparation of dianilinosilanes Patent  
[NASA-CASE-XMF-06409] c 06 N71-23230  
Process for preparation of high-molecular-weight polyaryloxysilanes Patent  
[NASA-CASE-XMF-08674] c 06 N71-28807
- DUNNING, J. W., JR.**  
Slug flow magnetohydrodynamic generator  
[NASA-CASE-XLE-02083] c 03 N69-39983
- DUPRAW, W. A.**  
Analytical test apparatus and method for determining oxide content of alkali metal Patent  
[NASA-CASE-XLE-01997] c 06 N71-23527
- DURAN, E. N.**  
Subminiature insertable force transducer  
[NASA-CASE-NPO-13423-1] c 33 N75-31329  
Miniature muscle displacement transducer  
[NASA-CASE-NPO-13519-1] c 33 N76-19338
- DURNEY, G. P.**  
Space suit  
[NASA-CASE-MS-C-12609-1] c 05 N73-32012
- DUSTIN, M. O.**  
Pneumatic oscillator Patent  
[NASA-CASE-LEW-10345-1] c 10 N71-25899  
Shock position sensor for supersonic inlets  
[NASA-CASE-LEW-11915-1] c 35 N76-14431
- DWINELL, W. S.**  
System for automatically switching transformer coupled lines  
[NASA-CASE-MS-C-16697-1] c 33 N79-28415
- E**
- EASLEY, W. C.**  
Resonant waveguide stark cell  
[NASA-CASE-LAR-11352-1] c 33 N75-26245
- EASTERLING, M. E.**  
Baseband signal combiner for large aperture antenna array  
[NASA-CASE-NPO-14641-1] c 32 N81-29308
- EASTERLING, M. F.**  
Radar ranging receiver Patent  
[NASA-CASE-XNP-00748] c 07 N70-36911  
Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680  
Time synchronization system utilizing moon reflected coded signals Patent  
[NASA-CASE-NPO-10143] c 10 N71-26326  
Two carrier communication system with single transmitter  
[NASA-CASE-NPO-11548] c 07 N73-26118  
Radio frequency arraying method for receivers  
[NASA-CASE-NPO-14328-1] c 32 N80-18253
- EASTON, R. A.**  
Data multiplexer using tree switching configuration  
[NASA-CASE-NPO-11333] c 08 N72-22182  
Flexible computer accessed telemetry  
[NASA-CASE-NPO-11358] c 07 N72-25172
- EATON, L. R.**  
Heat transfer device  
[NASA-CASE-MFS-22938-1] c 34 N76-18374
- EBERSOLE, T. J.**  
Inverter ratio failure detector  
[NASA-CASE-NPO-13160-1] c 35 N74-18090
- EBIHARA, B. T.**  
Thermal radiation shielding Patent  
[NASA-CASE-XLE-03432] c 33 N71-24145  
A multistage spent particle collector and a method for making same  
[NASA-CASE-LEW-13914-1] c 35 N84-12447
- EBY, R. J.**  
Thermal control system for a spacecraft modular housing  
[NASA-CASE-GSC-11018-1] c 31 N73-30829
- ECKERT, E. R. G.**  
Transpiration cooled turbine blade manufactured from wires Patent  
[NASA-CASE-XLE-00020] c 15 N70-33226
- ECKLES, P. N.**  
High-speed infrared furnace  
[NASA-CASE-XLE-10466] c 17 N69-25147
- ECONOMU, M. A.**  
Wire stripper  
[NASA-CASE-FRC-10111-1] c 37 N79-10419  
Air speed and altitude probe  
[NASA-CASE-FRC-11009-1] c 06 N80-18036
- ECORD, G. M.**  
Densification of porous refractory substrates  
[NASA-CASE-MS-C-18737-1] c 24 N83-13171  
Method of repairing surface damage to porous refractory substrates  
[NASA-CASE-MS-C-18736-1] c 24 N83-13172
- EDDINS, T. O.**  
Space craft soft landing system Patent  
[NASA-CASE-XMF-02108] c 31 N70-36845  
Missile launch release system Patent  
[NASA-CASE-XMF-03198] c 30 N70-40353
- EDLESON, S. K.**  
Latch/ejector unit Patent  
[NASA-CASE-XLA-03538] c 15 N71-24897
- EDMAN, C. W.**  
Electrical switching device Patent  
[NASA-CASE-NPO-10037] c 09 N71-19610
- EDWARDS, G. G.**  
Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087
- EDWARDS, J. W.**  
Apparatus for damping operator induced oscillations of a controlled system  
[NASA-CASE-FRC-11041-1] c 33 N82-18493
- EDWARDS, T. R.**  
Filtering device  
[NASA-CASE-MFS-22729-1] c 32 N76-21366  
Method of and apparatus for generating an interstitial point in a data stream having an even number of data points  
[NASA-CASE-MFS-25319-1] c 64 N83-12932
- EGGER, R. L.**  
Strain gage Patent Application  
[NASA-CASE-FRC-10053] c 14 N70-35587
- EGGERS, A. J., JR.**  
Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087
- EGLI, P. H.**  
Method of forming transparent films of ZnO  
[NASA-CASE-FRC-10019] c 15 N73-12487
- EHL, J. H.**  
Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297
- EHRENFELD, D. A.**  
Excitation and detection circuitry for a flux responsive magnetic head  
[NASA-CASE-XNP-04183] c 09 N69-24329  
Incremental tape recorder and data rate converter Patent  
[NASA-CASE-XNP-02778] c 08 N71-22710
- EICHENBRENNER, F. F.**  
Hydraulic grip Patent  
[NASA-CASE-XLA-05100] c 15 N71-17696  
Light shield and infrared reflector for fatigue testing Patent  
[NASA-CASE-XLA-01782] c 14 N71-26136  
Anti-buckling fatigue test assembly  
[NASA-CASE-LAR-10426-1] c 09 N74-19528
- EICHENTHAL, J.**  
Wide angle long eye relief eyepiece Patent  
[NASA-CASE-XNP-06056-1] c 23 N71-24857
- EISENBERGER, I.**  
Data compressor Patent  
[NASA-CASE-XNP-04067] c 08 N71-22707
- EL-AASSER, M. S.**  
Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242
- ELACHI, C.**  
Acoustically controlled distributed feedback laser  
[NASA-CASE-NPO-13175-1] c 36 N75-31427  
Diffused waveguiding capillary tube with distributed feedback for a gas laser  
[NASA-CASE-NPO-13544-1] c 36 N76-18428  
Fiber distributed feedback laser  
[NASA-CASE-NPO-13531-1] c 36 N76-24553  
Distributed feedback acoustic surface wave oscillator  
[NASA-CASE-NPO-13673-1] c 71 N77-26919

## ELBER, W.

- Partial interlaminar separation system for composites  
[NASA-CASE-LAR-12065-1] c 24 N81-14000  
Method of making a partial interlaminar separation  
composite system  
[NASA-CASE-LAR-12065-2] c 24 N81-33235  
Means for controlling aerodynamically induced twist  
[NASA-CASE-LAR-12175-1] c 05 N82-28279

## ELDER, N. D.

- Internal flare angle gauge Patent  
[NASA-CASE-XMF-04415] c 14 N71-24693

## ELIA, A. D.

- Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460

## ELIASON, J. T.

- Photovoltaic cell array  
[NASA-CASE-MFS-22458-1] c 44 N77-10635

## ELKINS, W.

- Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546  
Liquid cooled brassiere and method of diagnosing  
malignant tumors therewith  
[NASA-CASE-ARC-11007-1] c 52 N77-14736

## ELLEMAN, D. D.

- Continuous magnetic flux pump  
[NASA-CASE-XNP-01187] c 15 N73-28516  
Superconductive magnetic-field-trapping device  
[NASA-CASE-XNP-01185] c 26 N73-28710  
Magnetic-flux pump  
[NASA-CASE-XNP-01188] c 15 N73-32361  
Material suspension within an acoustically excited  
resonant chamber  
[NASA-CASE-NPO-13263-1] c 12 N75-24774  
Heat operated cryogenic electrical generator  
[NASA-CASE-NPO-13303-1] c 20 N75-24837  
Magnetometer using superconducting rotating body  
[NASA-CASE-NPO-13388-1] c 35 N76-16390  
Acoustic energy shaping  
[NASA-CASE-NPO-13802-1] c 71 N78-10837  
Method and apparatus for producing concentric hollow  
spheres  
[NASA-CASE-NPO-14596-1] c 31 N81-33319  
Closed loop electrostatic system  
[NASA-CASE-NPO-15553-1] c 33 N83-12335  
Method and apparatus for producing gas-filled hollow  
spheres  
[NASA-CASE-NPO-14598-3] c 31 N83-31896  
Acoustic system for material transport  
[NASA-CASE-NPO-15453-1] c 71 N83-32515  
Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781  
Acoustic rotation control  
[NASA-CASE-NPO-15689-1] c 71 N84-23233

## ELLERN, W. B.

- Method of evaluating moisture barrier properties of  
encapsulating materials Patent  
[NASA-CASE-NPO-10051] c 18 N71-24934

## ELLINGSWORTH, J. R.

- Tensile testing apparatus  
[NASA-CASE-LAR-13243-1] c 35 N84-20804

## ELLIOTT, D. G.

- Magnetohydrodynamic induction machine  
[NASA-CASE-XNP-07481] c 25 N69-21929  
Two-fluid magnetohydrodynamic system and method for  
thermal-electric power conversion Patent  
[NASA-CASE-XNP-00644] c 03 N70-36803  
Two phase flow system with discrete impinging  
two-phase jets  
[NASA-CASE-NPO-11556] c 12 N72-25292  
Method and turbine for extracting kinetic energy from  
a stream of two-phase fluid  
[NASA-CASE-NPO-14130-1] c 34 N79-20335  
Improved method for driving two-phase turbines with  
enhanced efficiency  
[NASA-CASE-NPO-15037-1] c 37 N80-26660

## ELLIOTT, R. L.

- Preparation of ordered poly /arylenesiloxane/  
polymers  
[NASA-CASE-XMF-10753] c 06 N71-11237  
Fluorinated esters of polycarboxylic acids  
[NASA-CASE-MFS-21040-1] c 06 N73-30098

## ELLIS, D. R.

- Integrated lift/drag controller for aircraft  
[NASA-CASE-ARC-10456-1] c 05 N75-12930

## ELLIS, H. JR.

- Coaxial phased array antenna  
[NASA-CASE-MSC-16800-1] c 32 N81-14187  
Cavity-backed, micro-strip dipole antenna array  
[NASA-CASE-MSC-18606-1] c 32 N82-11336  
Spiral slotted phased antenna array  
[NASA-CASE-MSC-18532-1] c 32 N82-27558

## ELLIS, S. G.

- Simple method of making photovoltaic junctions  
Patent  
[NASA-CASE-XNP-01960] c 09 N71-23027

- Method of electrolytically binding a layer of  
semiconductors together Patent  
[NASA-CASE-XNP-01959] c 26 N71-23043  
Method of changing the conductivity of vapor deposited  
gallium arsenide by the introduction of water into the vapor  
deposition atmosphere Patent  
[NASA-CASE-XNP-01981] c 26 N71-29156

## ELSNER, N. B.

- Stabilized lanthanum sulphur compounds  
[NASA-CASE-NPO-16135-1] c 25 N83-24572

## EMDE, W. D.

- Etching of aluminum for bonding Patent  
[NASA-CASE-XMF-02303] c 17 N71-23828

## EMERY, J. C.

- Laser grating interferometer Patent  
[NASA-CASE-XLA-04295] c 16 N71-24170

## ENGEL, A.

- Digital video display system using cathode ray tube  
[NASA-CASE-NPO-11342] c 09 N72-25248  
Symmetrical odd-modulus frequency divider  
[NASA-CASE-NPO-13426-1] c 33 N75-31330  
Digital data reformatter/deserializer  
[NASA-CASE-NPO-13676-1] c 60 N79-20751

## ENGLAND, C.

- Hydrogen-bromine secondary battery  
[NASA-CASE-NPO-13237-1] c 44 N76-18641  
Zinc-halide battery with molten electrolyte  
[NASA-CASE-NPO-11961-1] c 44 N76-18643

## ENGLAR, K. G.

- Artificial gravity spin deployment system Patent  
[NASA-CASE-XNP-02595] c 31 N71-21681

## ENIE, R. B.

- Method of repairing discontinuity in fiberglass  
structures  
[NASA-CASE-LAR-10416-1] c 24 N74-30001

## ENRIQUEZ, E. A.

- System for synchronizing synthesizers of communication  
systems  
[NASA-CASE-GSC-12148-1] c 32 N79-20296

## ENSTROM, R. E.

- Water cooled contactor for anode in carbon arc  
mechanism  
[NASA-CASE-XMS-03700] c 15 N69-24266

## EPPS, C. H., JR.

- Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-1] c 54 N76-22914  
Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-2] c 52 N81-25661

## EPSTEIN, J.

- Segmenting lead telluride-silicon germanium  
thermoelements Patent  
[NASA-CASE-XGS-05718] c 26 N71-16037  
Tungsten contacts on silicon substrates  
[NASA-CASE-GSC-10695-1] c 09 N72-25259

## EPSTEIN, P.

- Drying apparatus for photographic sheet material  
[NASA-CASE-GSC-11074-1] c 14 N73-28489

## ERB, R. B.

- Heat shield Patent  
[NASA-CASE-XMS-00486] c 33 N70-33344

## ERICKSON, W. D.

- Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925  
Hypersonic test facility Patent  
[NASA-CASE-XLA-05378] c 11 N71-21475  
Ablation article and method  
[NASA-CASE-LAR-10439-1] c 33 N73-27796

## ERNEST, J. B.

- Crude oil desulfurization  
[NASA-CASE-NPO-14542-1] c 25 N82-23282

## ERPENBACH, H.

- Means and methods of depositing thin films on  
substrates Patent  
[NASA-CASE-XNP-00595] c 15 N70-34967  
Process for reducing secondary electron emission  
Patent  
[NASA-CASE-XNP-09469] c 24 N71-25555

- Method of producing a storage bulb for an atomic  
hydrogen maser  
[NASA-CASE-NPO-13050-1] c 36 N75-15029

## ERRETT, D. D.

- Canopus detector including automotive gain control of  
photomultiplier tube Patent  
[NASA-CASE-XNP-03914] c 21 N71-10771

## ESCHER, W. J. D.

- Attitude and propellant flow control system and method  
Patent  
[NASA-CASE-XMF-00185] c 21 N70-34539  
Composite powerplant and shroud therefor Patent  
[NASA-CASE-XLA-01043] c 28 N71-10780

- Injector assembly for liquid fueled rocket engines  
Patent  
[NASA-CASE-XMF-00868] c 28 N71-15660

## ESGAR, J. B.

- Thin-walled pressure vessel Patent  
[NASA-CASE-XLE-04677] c 15 N71-10577

- Ophthalmic liquifaction pump  
[NASA-CASE-LEW-12051-1] c 52 N75-33640

## ESKEW, M. H., JR.

- Random function tracer Patent  
[NASA-CASE-XLA-01401] c 15 N71-21179

## ESPY, P. N.

- Coaxial high density, hypervelocity plasma generator and  
accelerator with ionizable metal disc  
[NASA-CASE-MFS-20589] c 25 N72-32688

## ESTES, E. G.

- Rocket nozzle test method Patent  
[NASA-CASE-NPO-10311] c 31 N71-15643

## ESTES, M. F.

- Apparatus for making diamonds  
[NASA-CASE-MFS-20698] c 15 N72-20446  
Process for making diamonds  
[NASA-CASE-MFS-20698-2] c 15 N73-19457

## ESTEY, R. S.

- Method and apparatus for precision control of  
radiometer  
[NASA-CASE-NPO-15398-1] c 35 N84-22931

## ESTRELLA, C. A.

- Catalysts for polyimide foams from aromatic isocyanates  
and aromatic dianhydrides  
[NASA-CASE-ARC-11107-1] c 25 N80-16116  
Adjustable high emittance gap filler  
[NASA-CASE-ARC-11310-1] c 27 N82-24339

## ETHRIDGE, E. C.

- Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568  
Containerless high purity pulling process and apparatus  
for glass fibers  
[NASA-CASE-MFS-25905-2] c 31 N84-32569

## ETSION, I.

- Canilever mounted resilient pad gas bearing  
[NASA-CASE-LEW-12569-1] c 37 N79-10418  
Self-stabilizing radial face seal  
[NASA-CASE-LEW-12991-1] c 37 N81-24442  
Modified face seal for positive film stiffness  
[NASA-CASE-LEW-12989-1] c 37 N82-12442

## ETZEL, J. G.

- Laser measuring system for incremental assemblies  
[NASA-CASE-GSC-12321-1] c 36 N82-16396

## EUBANKS, A. G.

- Device for measuring electron-beam intensities and for  
subjecting materials to electron irradiation in an electron  
microscope  
[NASA-CASE-XGS-01725] c 14 N69-39982  
Foamed in place ceramic refractory insulating material  
Patent  
[NASA-CASE-XGS-02435] c 18 N71-22998

## EULITZ, W. R.

- Slosh suppressing device and method Patent  
[NASA-CASE-XMF-00658] c 12 N70-38997

## EVANS, D. D.

- Ignition means for monopropellant Patent  
[NASA-CASE-XNP-00876] c 28 N70-41311

## EVANS, D. G.

- Multistage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00170] c 15 N70-36412  
Multistage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00085] c 28 N70-39895

## EVANS, E. H.

- Strain sensor for high temperatures Patent  
[NASA-CASE-XNP-09205] c 14 N71-17657

## EVANS, F. D.

- Autoignition test cell Patent  
[NASA-CASE-KSC-10198] c 11 N71-28629

## EVANS, G. A.

- Fiber distributed feedback laser  
[NASA-CASE-NPO-13531-1] c 36 N76-24553

## EVANS, H. E.

- Energy storage apparatus  
[NASA-CASE-GSC-12030-1] c 44 N78-24608

## EVANS, J.

- Millimeter wave antenna system Patent Application  
[NASA-CASE-GSC-10949-1] c 07 N71-28965  
Solenoid valve including guide for armature and valve  
member  
[NASA-CASE-GSC-10607-1] c 15 N72-20442

## Nutation damper

- [NASA-CASE-GSC-11205-1] c 15 N73-25513

- Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153

## EVANS, J. C., JR.

- Rapidly pulsed, high intensity, incoherent light source  
[NASA-CASE-XLE-2529-3] c 33 N74-20859

- High power laser apparatus and system  
[NASA-CASE-XLE-2529-2] c 36 N75-27384

- Solar cell collector  
[NASA-CASE-LEW-12552-1] c 44 N78-25527

- Method for producing solar energy panels by  
automation  
[NASA-CASE-LEW-12541-1] c 44 N78-25529

- Solar cells having integral collector grids  
[NASA-CASE-LEW-12819-1] c 44 N79-11467

- Application of semiconductor diffusants to solar cells by screen printing  
[NASA-CASE-LEW-12775-1] c 44 N79-11468
- Solar cell collector and method for producing same  
[NASA-CASE-LEW-12552-2] c 44 N79-11472
- Method for fabricating solar cells having integrated collector grits  
[NASA-CASE-LEW-12819-2] c 44 N79-18444
- Solar cell system having alternating current output  
[NASA-CASE-LEW-12806-2] c 44 N81-12542
- Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709
- High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31764
- Heat transparent high intensity high efficiency solar cell  
[NASA-CASE-LEW-12892-1] c 44 N83-14692
- High voltage v-groove solar cell  
[NASA-CASE-LEW-13401-2] c 44 N83-32177
- EVANS, J. M., JR.**  
System and method for tracking a signal source  
[NASA-CASE-HQN-10880-1] c 17 N78-17140
- EVANS, K. C.**  
Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996
- EVANS, L. G.**  
Method and apparatus for mapping the distribution of chemical elements in an extended medium  
[NASA-CASE-GSC-12808-1] c 45 N83-20446
- EVANS, P. K.**  
Device for tensioning test specimens within an hermetically sealed chamber  
[NASA-CASE-MFS-23281-1] c 35 N77-22450
- EVENSEN, D. A.**  
Buoyant anti-slosh system Patent  
[NASA-CASE-XLA-04605] c 32 N71-16106
- EVVARD, J. C.**  
Ophthalmic method and apparatus  
[NASA-CASE-LEW-11669-1] c 05 N73-27062
- EWEN, H. I.**  
Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774
- Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437
- EXTON, R. J.**  
Stack plume visualization system  
[NASA-CASE-LAR-11675-1] c 45 N76-17656
- TV fatigue crack monitoring system  
[NASA-CASE-LAR-11490-1] c 39 N78-16387
- EZEKIEL, F. D.**  
Fluid power transmitting gas bearing Patent  
[NASA-CASE-ERC-10097] c 15 N71-28465
- F**
- FAETH, P. A.**  
Automatic recording McLeod gauge Patent  
[NASA-CASE-XLE-03280] c 14 N71-23093
- FAGET, M. A.**  
Survival couch Patent  
[NASA-CASE-XLA-00118] c 05 N70-33285
- Aerial capsule emergency separation device Patent  
[NASA-CASE-XLA-00115] c 03 N70-33343
- Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938
- Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664
- Space shuttle vehicle and system  
[NASA-CASE-MSC-12433] c 31 N73-14854
- Space vehicle system  
[NASA-CASE-MSC-12561-1] c 18 N76-17185
- FAGOT, R. J.**  
Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546
- Respiration monitor  
[NASA-CASE-FRC-10012] c 14 N72-17329
- FAKAN, J. C.**  
Superconducting alternator  
[NASA-CASE-XLE-02824] c 03 N69-39890
- Superconducting alternator Patent  
[NASA-CASE-XLE-02823] c 09 N71-23443
- FALBEL, G.**  
Multi-lobe scan horizon sensor Patent  
[NASA-CASE-XGS-00809] c 21 N70-35427
- FALES, C. L., JR.**  
Magnetometer with a miniature transducer and automatic scanning  
[NASA-CASE-LAR-11617-2] c 35 N78-32397
- FALK, W. C.**  
Miniature vibration isolator Patent  
[NASA-CASE-XLA-01019] c 15 N70-40156
- Canister closing device Patent  
[NASA-CASE-XLA-01446] c 15 N71-21528
- FANG, P.**  
Recovery of radiation damaged solar cells through thermal annealing  
[NASA-CASE-XGS-04047-2] c 03 N72-11062
- FANNIN, B. B.**  
System for the measurement of ultra-low stray light levels  
[NASA-CASE-MFS-23513-1] c 74 N79-11865
- FARMER, M. G.**  
Model mount system for testing flutter  
[NASA-CASE-LAR-12950-1] c 09 N84-34448
- FARNSWORTH, D. L.**  
Phototransistor imaging system  
[NASA-CASE-MFS-20809] c 23 N73-13660
- Solid-state current transformer  
[NASA-CASE-MFS-22560-1] c 33 N77-14335
- FARNSWORTH, F. D.**  
Space simulation and radiative property testing system and method Patent  
[NASA-CASE-MFS-20096] c 14 N71-30026
- FARRELL, R.**  
Lead attachment to high temperature devices  
[NASA-CASE-ERC-10224] c 09 N72-25261
- Wide temperature range electronic device with lead attachment  
[NASA-CASE-ERC-10224-2] c 09 N73-27150
- FARRIS, C. D.**  
Storage battery comprising negative plates of a wedge shaped configuration  
[NASA-CASE-NPO-11806-1] c 44 N74-19693
- FARTHING, W. H.**  
Device for determining relative angular position between a spacecraft and a radiation emitting celestial body  
[NASA-CASE-GSC-11444-1] c 14 N73-28490
- FASSBENDER, A. G.**  
Electrical conductivity cell and method for fabricating the same  
[NASA-CASE-ARC-10810-1] c 33 N76-19339
- FAULKNER, R. D.**  
Bonding graphite with fused silver chloride  
[NASA-CASE-XGS-00963] c 15 N69-39735
- FAY, R. J.**  
Metal shearing energy absorber  
[NASA-CASE-HQN-10638-1] c 15 N73-30460
- FEAKES, F.**  
Gauge calibration by diffusion  
[NASA-CASE-XGS-07752] c 14 N73-30390
- FEALEY, R. D.**  
Bacteria detection instrument and method  
[NASA-CASE-GSC-11533-1] c 14 N73-13435
- FEARNEOUGH, H. T.**  
Parallel-plate viscometer with double diaphragm suspension  
[NASA-CASE-NPO-11387] c 14 N73-14429
- FEATHERSTON, A. B.**  
Method of fluxless brazing and diffusion bonding of aluminum containing components  
[NASA-CASE-MSC-14435-1] c 37 N76-18455
- FEDOR, J. V.**  
Stretch de-spin mechanism Patent  
[NASA-CASE-XGS-00619] c 30 N70-40016
- FEDORS, R. F.**  
Parallel-plate viscometer with double diaphragm suspension  
[NASA-CASE-NPO-11387] c 14 N73-14429
- Photomechanical transducer  
[NASA-CASE-NPO-14363-1] c 39 N81-25400
- FEHRENKAMP, L. G.**  
Surface finishing  
[NASA-CASE-MSC-12631-1] c 24 N77-28225
- Surface finishing  
[NASA-CASE-MSC-12631-3] c 27 N81-14077
- FEILER, C. E.**  
Control of transverse instability in rocket combustors Patent  
[NASA-CASE-XLE-04603] c 33 N71-21507
- FEINBERG, P. M.**  
Digital telemetry system Patent  
[NASA-CASE-XGS-01812] c 07 N71-23001
- Programmable telemetry system Patent  
[NASA-CASE-GSC-10131-1] c 07 N71-24624
- FEINSTEIN, L.**  
Microwave flaw detector Patent  
[NASA-CASE-ARC-10009-1] c 15 N71-17822
- Method and apparatus for swept-frequency impedance measurements of welds  
[NASA-CASE-ARC-10176-1] c 15 N72-21464
- FEINSTEIN, S. P.**  
Viscosity measuring instrument  
[NASA-CASE-NPO-14501-1] c 35 N80-18357
- FELDSTEIN, C.**  
Subminiature insertable force transducer  
[NASA-CASE-NPO-13423-1] c 33 N75-31329
- Miniature muscle displacement transducer  
[NASA-CASE-NPO-13519-1] c 33 N76-19338
- Myocardium wall thickness transducer and measuring method  
[NASA-CASE-NPO-13644-1] c 52 N76-29895
- Catheter tip force transducer for cardiovascular research  
[NASA-CASE-NPO-13643-1] c 52 N76-29896
- Apparatus and method of inserting a microelectrode in body tissue or the like using vibration means  
[NASA-CASE-NPO-13910-1] c 52 N79-27836
- Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072
- Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703
- System and method for moving a probe to follow movements of tissue  
[NASA-CASE-NPO-15197-1] c 52 N83-25346
- FELL, D. M.**  
Flexible pile thermal barrier insulator  
[NASA-CASE-MSC-19568-1] c 34 N78-25350
- FELTNER, W. R.**  
Multilevel metallization method for fabricating a metal oxide semiconductor device  
[NASA-CASE-MFS-23541-1] c 76 N79-14906
- Method of construction of a multi-cell solar array  
[NASA-CASE-MFS-23540-1] c 44 N79-26475
- FENG, S. Y.**  
Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation  
[NASA-CASE-HQN-10792-1] c 33 N74-11049
- FENTRESS, C. E.**  
Expanding center probe and drogue Patent  
[NASA-CASE-XMS-03613] c 31 N71-16346
- FENWICK, J. R.**  
Accumulator  
[NASA-CASE-MFS-19287-1] c 34 N77-30399
- FERGUSON, R. E.**  
Two-step rocket engine bipropellant valve Patent  
[NASA-CASE-XMS-04890-1] c 15 N70-22192
- FERRARA, L. J.**  
Collapsible Apollo couch  
[NASA-CASE-MSC-13140] c 05 N72-11085
- FESSLER, T. E.**  
Thin window, drifted silicon, charged particle detector  
[NASA-CASE-XLE-10529] c 14 N69-23191
- Method of forming thin window drifted silicon charged particle detector Patent  
[NASA-CASE-XLE-00808] c 24 N71-10560
- FEWELL, L. L.**  
Process for the preparation of polycarboranylphosphazenes  
[NASA-CASE-ARC-11176-2] c 27 N81-27271
- Carboranylphosphazenes and their polymers  
[NASA-CASE-ARC-11176-1] c 27 N82-18389
- FIELDS, S. A.**  
Device and method for determining X ray reflection efficiency of optical surfaces  
[NASA-CASE-MFS-20243] c 23 N73-13662
- FLET, O. O.**  
Electrohydrodynamic control valve Patent  
[NASA-CASE-NPO-10416] c 12 N71-27332
- FIGGINS, D. A.**  
Adaptive system and method for signal generation Patent  
[NASA-CASE-GSC-11367] c 10 N71-26374
- FILIP, G. L.**  
Storage container for electronic devices Patent  
[NASA-CASE-MFS-20075] c 09 N71-26133
- Method of coating through-holes Patent  
[NASA-CASE-XMF-05999] c 15 N71-29032
- FINDL, E.**  
Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
[NASA-CASE-XLE-04526] c 03 N71-11052
- FINK, J. W.**  
Bus voltage compensation circuit for controlling direct current motor  
[NASA-CASE-XMS-04215-1] c 09 N69-39987
- FINKE, R.**  
Piezoelectric deicing device  
[NASA-CASE-LEW-13773-2] c 35 N84-32782
- FINKE, R. C.**  
Electrode and insulator with shielded dielectric junction  
[NASA-CASE-XLE-03778] c 09 N69-21542
- Pressure monitoring with a plurality of ionization gauges controlled at a central location Patent  
[NASA-CASE-XLE-00787] c 14 N71-21090
- FINKEL, M. W.**  
Optical scanner  
[NASA-CASE-GSC-12897-1] c 74 N84-25450
- FINLEY, T. D.**  
Split range transducer  
[NASA-CASE-XLA-11189] c 10 N72-20222

## FINLEY, W. R.

Analog-to-digital converter  
[NASA-CASE-MSC-13110-1] c 08 N72-22163

## FINNERTY, A. A.

Sphere forming method and apparatus  
[NASA-CASE-NPO-15070-1] c 31 N83-35176

## FINNIE, C. J.

Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent  
[NASA-CASE-XNP-01193] c 10 N71-16057

## FISCHELL, D. R.

Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875

## FISCHER, J. A.

Adjustable tension wire guide Patent  
[NASA-CASE-XMS-02383] c 15 N71-15918

## FISCHER, J. R.

Interleaving device  
[NASA-CASE-GSC-12111-2] c 33 N81-29342

## FISH, D. C.

Spin forming tubular elbows Patent  
[NASA-CASE-XMF-01083] c 15 N71-22723

## FISH, R. H.

Fiber modified polyurethane foam for ballistic protection  
[NASA-CASE-ARC-10714-1] c 27 N76-15310

## FISH, R. M.

Auditory display for the blind  
[NASA-CASE-HQN-10832-1] c 71 N74-21014

## FISHER, A.

Process for making RF shielded cable connector assemblies and the products formed thereby  
[NASA-CASE-GSC-11215-1] c 09 N73-28083

## FITCH, E. J.

Modulator for tone and binary signals  
[NASA-CASE-GSC-11743-1] c 32 N75-24881

## FITTING, R. C.

Phase modulator Patent  
[NASA-CASE-MSC-13201-1] c 07 N71-28429

## FITTON, J. A., JR.

Multiple orifice throttle valve Patent  
[NASA-CASE-XNP-09698] c 15 N71-18580

## FITZER, G. E.

Machine for use in monitoring fatigue life for a plurality of elastomeric specimens  
[NASA-CASE-NPO-13731-1] c 39 N78-10493

## FITZGERALD, D. J.

Ion thruster with a combination keeper electrode and electron baffle  
[NASA-CASE-NPO-11880] c 28 N73-24783

## FITZGERALD, D. J.

Plasma igniter for internal combustion engine  
[NASA-CASE-NPO-13828-1] c 37 N78-11405

## FITZGERALD, J. J.

Flow test device  
[NASA-CASE-XMS-04917] c 14 N69-24257

## FITZGERALD, J. W.

Visual examination apparatus  
[NASA-CASE-ARC-10329-1] c 05 N73-26072

## FITZGERALD, J. W.

Visual examination apparatus  
[US-PATENT-RE-28,921] c 52 N76-30793

## FITZGERALD, T. M.

A solid state acoustic variable time delay line Patent  
[NASA-CASE-ERC-10032] c 10 N71-25900

## FITZMAURICE, M. W.

Retrodirectional modulator Patent  
[NASA-CASE-GSC-10062] c 14 N71-15605

## FITZMAURICE, M. W.

Apparatus for simulating optical transmission links  
[NASA-CASE-GSC-11877-1] c 74 N76-18913

## FLAGGE, B.

Polarization compensator for optical communications  
[NASA-CASE-GSC-11782-1] c 74 N76-30053

## FLAGGE, B.

Vibrating structure displacement measuring instrument Patent  
[NASA-CASE-XLA-03135] c 32 N71-16428

## FLAGGE, B.

Arbitrarily shaped model survey system Patent  
[NASA-CASE-LAR-10098] c 32 N71-26681

## FLAGGE, B.

Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-10503-1] c 09 N72-21248

## FLAGGE, B.

Measuring probe position recorder  
[NASA-CASE-LAR-10808-1] c 35 N74-32877

## FLAGGE, B.

Electro-mechanical sine/cosine generator  
[NASA-CASE-LAR-11389-1] c 33 N77-26387

## FLAGGE, B.

Displacement probes with self-contained exciting medium  
[NASA-CASE-LAR-11690-1] c 35 N80-14371

## FLAHERTY, R.

Thermally cascaded thermoelectric generator  
[NASA-CASE-NPO-10753] c 03 N72-26031

## FLAMM, D. L.

Electric discharge for treatment of trace contaminants  
[NASA-CASE-ARC-10975-1] c 33 N79-15245

## FLANNERY, E. J.

Method and apparatus for controllably heating fluid  
[NASA-CASE-XMF-04237] c 33 N71-16278

## FLATAU, C. R.

Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041

## FLATTAU, T.

Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346

## FLEETWOOD, C. M.

Method of forming a sharp edge on an optical device  
[NASA-CASE-GSC-12348-1] c 74 N80-24149

## FLEETWOOD, C. M., JR.

Method of treating the surface of a glass member  
[NASA-CASE-GSC-12110-1] c 27 N77-32308

## FLEISCHMAN, G. L.

Flat-plate heat pipe  
[NASA-CASE-GSC-11998-1] c 34 N77-32413

## FLEMING, D. P.

Dual clearance squeeze film damper  
[NASA-CASE-LEW-13506-1] c 07 N84-22562

## FLETCHER, E. A.

Apparatus for igniting solid propellants Patent  
[NASA-CASE-XLE-00207] c 28 N70-33375

## FLETCHER, E. A.

Method of igniting solid propellants Patent  
[NASA-CASE-XLE-01988] c 27 N71-15634

## FLETCHER, I. L.

Satellite interface synchronization system  
[NASA-CASE-NPO-10390-1] c 07 N72-11149

## FLETCHER, J. C.

Heat flow calorimeter  
[NASA-CASE-GSC-11434-1] c 34 N74-27859

## FLETNER, W. R.

Field effect transistor and method of construction thereof  
[NASA-CASE-MFS-23312-1] c 33 N78-27326

## FLIPPIN, A.

Sun angle calculator  
[NASA-CASE-MSC-12617-1] c 35 N76-29552

## FLORES, A. L.

Field ionization electrodes Patent  
[NASA-CASE-ERC-10013] c 09 N71-26678

## FLOYD, E. L.

High impact pressure regulator Patent  
[NASA-CASE-NPO-10175] c 14 N71-18825

## FOGAL, G. L.

Automatic bioassess sampling  
[NASA-CASE-MSC-14640-1] c 54 N78-14804

## FOGAL, G. L.

Fluid mass sensor for a zero gravity environment  
[NASA-CASE-MSC-14653-1] c 35 N77-19385

## FOHLEN, G. M.

Intumescent paints Patent  
[NASA-CASE-ARC-10099-1] c 18 N71-15469

## FOHLEN, G. M.

Transparent fire resistant polymeric structures  
[NASA-CASE-ARC-10813-1] c 27 N76-18230

## FOHLEN, G. M.

Phosphorus-containing bisimide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272

## FOHLEN, G. M.

Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275

## FOHLEN, G. M.

Phosphorus-containing imide resins  
[NASA-CASE-ARC-11388-1] c 27 N83-31854

## FOHLEN, G. M.

Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322

## FOHLEN, G. M.

Process for preparing phthalocyanine polymers  
[NASA-CASE-ARC-11511-1] c 23 N84-16259

## FOHLEN, G. M.

Amine terminated bispartimides, process for preparation thereof, and polymers thereof  
[NASA-CASE-ARC-11421-1] c 27 N84-16340

## FOHLEN, G. M.

Fire and heat resistant laminating resins based on maleimido substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697

## FOHLEN, G. M.

Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-3] c 27 N84-22745

## FOHLEN, G. M.

Metal phthalocyanine polymers  
[NASA-CASE-ARC-11405-1] c 27 N84-27884

## FONG, W. S.

Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15767-1] c 23 N84-16255

## FONTANA, A.

Solar sensor having coarse and fine sensing with matched preirradiated cells and method of selecting cells  
[NASA-CASE-XLA-01584] c 14 N71-23269

## FONTES, M. J.

Method of tracing contour patterns for use in making gradual contour resin matrix composites  
[NASA-CASE-ARC-11246-1] c 31 N83-34073

## FOOTE, R. H.

Adaptive system and method for signal generation  
[NASA-CASE-GSC-11367] c 10 N71-26374

## FORBES, S. G.

Apparatus for field strength measurement of a space vehicle Patent  
[NASA-CASE-XLE-00820] c 14 N71-16014

## FORD, A. G.

Rock drill for recovering samples  
[NASA-CASE-XNP-07478] c 14 N69-21923

## FORD, A. G.

Electrically-operated rotary shutter Patent  
[NASA-CASE-XNP-00637] c 14 N70-40273

## FORD, A. G.

Motion restraining device  
[NASA-CASE-NPO-13619-1] c 37 N78-16369

## FORD, A. G.

Speed control device for a heavy duty shaft  
[NASA-CASE-NPO-14170-1] c 37 N81-15384

## FORD, F. C.

Hypervelocity gun  
[NASA-CASE-XLE-03186-1] c 09 N79-21084

## FORD, F. E.

Coulometer and third electrode battery charging circuit Patent  
[NASA-CASE-GSC-10487-1] c 03 N71-24719

## FORD, L. B.

Thermal reactor  
[NASA-CASE-NPO-14369-1] c 44 N83-10501

## FORD, R. R.

Antenna system using parasitic elements and two driven elements at 90 deg angle fed 180 deg out of phase  
[NASA-CASE-XLA-00414] c 07 N70-38200

## FOREHAND, L.

Solar cell mounting Patent  
[NASA-CASE-XNP-00826] c 03 N71-20895

## FORESTIERI, A. F.

Method of making silicon solar cell array  
[NASA-CASE-LEW-11069-1] c 44 N74-14784

## FORESTIERI, A. F.

Solar cell shingle  
[NASA-CASE-LEW-12587-1] c 44 N77-31601

## FORESTIERI, A. F.

Method of making encapsulated solar cell modules  
[NASA-CASE-LEW-12185-1] c 44 N78-25528

## FORLIFER, W. R.

Landing gear Patent  
[NASA-CASE-XMF-01174] c 02 N70-41589

## FORMAN, R.

Ion sputter textured graphite  
[NASA-CASE-LEW-12919-1] c 24 N83-10117

## FORMAN, R.

Ion sputter textured graphite electrode plates  
[NASA-CASE-LEW-12919-2] c 70 N84-28565

## FORSYTHE, A. K.

Umbilical separator for rockets Patent  
[NASA-CASE-NPO-00425] c 11 N70-38202

## FORTIER, E. P.

Scriber for silicon wafers  
[NASA-CASE-NPO-15539-1] c 37 N82-11469

## FORTINI, A.

Method of electroforming a rocket chamber  
[NASA-CASE-LEW-11118-1] c 20 N74-32919

## FORTINI, A.

Rocket chamber and method of making  
[NASA-CASE-LEW-11118-2] c 20 N76-14191

## FORTINI, A.

Heat exchanger and method of making  
[NASA-CASE-LEW-12441-1] c 34 N79-13289

## FORTINI, A.

Heat exchanger and method of making  
[NASA-CASE-LEW-12441-2] c 34 N80-24573

## FORTINI, A.

Heat exchanger and method of making  
[NASA-CASE-LEW-12441-3] c 44 N81-24519

## FOSTER, J. V.

Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent  
[NASA-CASE-XAC-00048] c 02 N71-29128

## FOSTER, J. V.

Magnetic position detection method and apparatus  
[NASA-CASE-ARC-10178-1] c 21 N72-22619

## FOSTER, L. E.

Magnetomotive metal working device Patent  
[NASA-CASE-XMF-03793] c 15 N71-24833

## FOSTER, T.

Variable cycle gas turbine engines  
[NASA-CASE-LEW-12916-1] c 37 N78-17384

## FOSTER, T.

Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067

## FOUTCH, G. L.

Production of butanol by fermentation in the presence of co-culture of clostridium  
[NASA-CASE-NPO-16203-1] c 44 N83-29806

## FOWLER, J.

Bit error rate measurement above and below bit rate tracking threshold  
[NASA-CASE-MSC-12743-1] c 32 N79-10263

## FOWLER, J. T.

Parasitic suppressing circuit  
[NASA-CASE-ERC-10403-1] c 10 N73-26228

## FOX, R. L.

One-step dual purpose joining technique  
[NASA-CASE-LAR-12595-1] c 33 N82-26571

## FOX, R. L.

Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591

## FOX, R. L.

Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044

## FOX, W. E.

Event recorder Patent  
[NASA-CASE-XLA-01832] c 14 N71-21006

- FRALEY, T. O.**  
Method and apparatus for rapid thrust increases in a turbofan engine  
[NASA-CASE-LEW-12971-1] c 07 N80-18039
- FRANCISCO, A. C.**  
Process for applying a protective coating for salt bath brazing Patent  
[NASA-CASE-XLE-00046] c 15 N70-33311
- FRANCISCUS, L. C.**  
Supersonic-combustion rocket  
[NASA-CASE-LEW-11058-1] c 20 N74-13502
- FRANK, H. A.**  
Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
[NASA-CASE-XLE-04526] c 03 N71-11052
- FRANKE, J. M.**  
Laser Doppler velocity simulator  
[NASA-CASE-LAR-12176-1] c 36 N80-16321  
Direction sensitive laser velocimeter  
[NASA-CASE-LAR-12177-1] c 36 N81-24422
- FRANKLIN, C. R.**  
Digital interface for bi-directional communication between a computer and a peripheral device  
[NASA-CASE-MS-C-20258-1] c 60 N84-28492
- FRANKLIN, W. J.**  
Segmented back-up bar Patent  
[NASA-CASE-XMF-00640] c 15 N70-39924  
Portable alignment tool Patent  
[NASA-CASE-XMF-01452] c 15 N70-41371
- FRASER, A. S.**  
Water system virus detection  
[NASA-CASE-MS-C-16098-1] c 51 N79-10693
- FRAZE, R. E.**  
Cryogenic cooling system Patent  
[NASA-CASE-NPO-10467] c 23 N71-26654
- FRAZER, R. E.**  
Vacuum evaporator with electromagnetic ion steering Patent  
[NASA-CASE-NPO-10331] c 09 N71-26701  
Coupling apparatus for ultrasonic medical diagnostic system  
[NASA-CASE-NPO-13935-1] c 52 N79-14751  
Strong thin membrane structure  
[NASA-CASE-NPO-14021-2] c 27 N80-16163  
Apparatus for endoscopic examination  
[NASA-CASE-NPO-14092-1] c 52 N80-16725  
Constant magnification optical tracking system  
[NASA-CASE-NPO-14813-1] c 74 N82-24072
- FRAZIER, M. J.**  
Junction range finder  
[NASA-CASE-KSC-10108] c 14 N73-25461
- FRECHE, J. C.**  
High temperature nickel-base alloy Patent  
[NASA-CASE-XLE-00151] c 17 N70-33283  
External liquid-spray cooling of turbine blades Patent  
[NASA-CASE-XLE-00037] c 28 N70-33372  
Nickel-base alloy Patent  
[NASA-CASE-XLE-00283] c 17 N70-36616  
High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-00726] c 17 N71-15644  
High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-02991] c 17 N71-16025  
Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent  
[NASA-CASE-XLE-02082] c 17 N71-16026  
High temperature ferromagnetic cobalt-base alloy Patent  
[NASA-CASE-XLE-03629] c 17 N71-23248  
Liquid spray cooling method Patent  
[NASA-CASE-XLE-00027] c 33 N71-29152  
Method of forming superalloys  
[NASA-CASE-LEW-10805-1] c 15 N73-13465  
Cobalt-base alloy  
[NASA-CASE-LEW-10436-1] c 17 N73-32415  
Method of heat treating a formed powder product material  
[NASA-CASE-LEW-10805-3] c 26 N74-10521  
Method of forming articles of manufacture from superalloy powders  
[NASA-CASE-LEW-10805-2] c 37 N74-13179  
Nickel base alloy  
[NASA-CASE-LEW-12270-1] c 26 N77-32280
- FREDD, E. H.**  
Television camera video level control system  
[NASA-CASE-MS-C-18578-1] c 74 N82-27121
- FREDRICKSON, C. A.**  
Energy absorption device Patent  
[NASA-CASE-XNP-01848] c 15 N71-28959
- FREEDMAN, L. A.**  
Television camera video level control system  
[NASA-CASE-MS-C-18578-1] c 74 N82-27121
- FREEMAN, E. T.**  
Film advance indicator  
[NASA-CASE-LAR-12474-1] c 35 N82-26628
- FREEMAN, R. S.**  
Air frame drag balance Patent  
[NASA-CASE-XLA-00113] c 14 N70-33386
- FREGGINS, R. A.**  
Thermal flux transfer system  
[NASA-CASE-NPO-12070-1] c 28 N73-32606
- FRENCH, K. R.**  
Ozonation of cooling tower waters  
[NASA-CASE-NPO-14340-1] c 45 N80-14579
- FRENCH, J. C.**  
Nickel base alloy  
[NASA-CASE-LEW-10874-1] c 17 N72-22535
- FRIDRICH, C. W.**  
Apparatus for welding sheet material  
[NASA-CASE-XMS-01330] c 37 N75-27376
- FRIEDMAN, H. J.**  
Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694
- FRIEDEL, M. V.**  
Positive isolation disconnect  
[NASA-CASE-MS-C-16043-1] c 37 N79-11402
- FRIEDERICH, J. E.**  
Biomedical radiation detecting probe Patent  
[NASA-CASE-XMS-01177] c 05 N71-19440
- FRIEDLANDER, S. K.**  
Particle analyzing method and apparatus  
[NASA-CASE-NPO-15292-1] c 35 N83-27184
- FRIEDRICH, E. W.**  
Reentry vehicle leading edge Patent  
[NASA-CASE-XLA-00165] c 31 N70-33242
- FRIICHTENICHT, J. F.**  
Apparatus for handling micron size range particulate material  
[NASA-CASE-NPO-10151] c 37 N78-17386
- FRIPP, A. L.**  
Reusable thermal cycling clamp  
[NASA-CASE-LAR-12868-1] c 27 N82-18390  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 35 N82-31659  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-2] c 33 N83-24763
- FRISBIE, H. F.**  
Device for determining relative angular position between a spacecraft and a radiation emitting celestial body  
[NASA-CASE-GSC-11444-1] c 14 N73-28490
- FRITZ, W. M.**  
Method of fabricating a photovoltaic module of a substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550
- FRITZEN, M., JR.**  
Noncontaminating swabs  
[NASA-CASE-MFS-18100] c 15 N72-11390
- FRIZZILL, A. W.**  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- FROELING, S. C.**  
Casting propellant in rocket engine  
[NASA-CASE-LAR-11995-1] c 28 N77-10213
- FROST, J. D., JR.**  
EEG sleep analyzer and method of operation Patent  
[NASA-CASE-MS-C-13282-1] c 05 N71-24729  
Compressible biomedical electrode  
[NASA-CASE-MS-C-13648] c 05 N72-27103  
Snap-in compressible biomedical electrode  
[NASA-CASE-MS-C-14623-1] c 52 N77-28717
- FRYER, T. B.**  
Telemeter adaptable for implanting in an animal Patent  
[NASA-CASE-XAC-05706] c 05 N71-12342  
RF controlled solid state switch  
[NASA-CASE-ARC-10136-1] c 09 N72-22202  
Low power electromagnetic flowmeter providing accurate zero set  
[NASA-CASE-ARC-10362-1] c 14 N73-32326  
Miniature ingestible telemeter devices to measure deep-body temperature  
[NASA-CASE-ARC-10583-1] c 52 N78-29894  
Induction powered biological radiosonde  
[NASA-CASE-ARC-11120-1] c 52 N80-18691
- FUCHS, J. C.**  
Lightning current waveform measuring system  
[NASA-CASE-KSC-11018-1] c 33 N79-10337
- FUHR, W.**  
Method for applying photographic resists to otherwise incompatible substrates  
[NASA-CASE-MS-C-18107-1] c 27 N81-25209
- FUHRMEISTER, P. F.**  
Random function tracer Patent  
[NASA-CASE-XLA-01401] c 15 N71-21179
- FUJIOKA, R. S.**  
Folding structure fabricated of rigid panels  
[NASA-CASE-XHQ-02148] c 18 N75-27040
- FULCHER, C. W. G.**  
Automatic control of liquid cooling garment by cutaneous and external auditory meatus temperatures  
[NASA-CASE-MS-C-13917-1] c 05 N72-15098
- FULCHER, R. W.**  
Low speed phaselock speed control system  
[NASA-CASE-GSC-11127-1] c 09 N75-24758
- FULLER, H. V.**  
Cable restraint  
[NASA-CASE-LAR-10129-1] c 15 N73-25512  
Reeling system  
[NASA-CASE-LAR-10129-2] c 37 N74-20063  
Binocular device for displaying numerical information in field of view  
[NASA-CASE-LAR-11782-1] c 74 N77-20882
- FULTON, D. S.**  
A spillage detector for liquid chromatography systems  
[NASA-CASE-MS-C-20206-1] c 25 N83-29325
- FUNG, L. W.**  
Massively parallel processor computer  
[NASA-CASE-GSC-12223-1] c 60 N83-25378
- FUNK, B. H., JR.**  
Optical probing of supersonic flows with statistical correlation  
[NASA-CASE-MFS-20642] c 14 N72-21407
- FURCINITI, C. A.**  
Pulse-width modulation multiplier Patent  
[NASA-CASE-XER-09213] c 07 N71-12390
- FURMAN, E. R.**  
Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-1] c 31 N78-17237  
Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-2] c 34 N79-20336
- FURNER, R. L.**  
Automated analysis of oxidative metabolites  
[NASA-CASE-ARC-10469-1] c 25 N75-12086
- FURTSCH, T. A.**  
Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396
- FURUMOTO, H. W.**  
Optical pump and driver system for lasers  
[NASA-CASE-ERC-10283] c 16 N72-25485
- FYLER, N. F.**  
Very high intensity light source using a cathode ray tube  
[NASA-CASE-XNP-01296] c 33 N75-27250
- FYMAT, A. L.**  
Interferometer-polarimeter  
[NASA-CASE-NPO-11239] c 14 N73-12446  
High resolution Fourier interferometer-spectrophotopolarimeter  
[NASA-CASE-NPO-13604-1] c 35 N76-31490  
Frequency-scanning particle size spectrometer  
[NASA-CASE-NPO-13806-2] c 35 N80-18364

## G

- GALEMA, S. D.**  
CCD correlated quadruple sampling processor  
[NASA-CASE-NPO-14426-1] c 33 N79-17134  
CCD correlated quadruple sampling processor  
[NASA-CASE-NPO-14426-1] c 33 N81-27396
- GABROVIC, L. J.**  
Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent  
[NASA-CASE-XGS-02011] c 15 N71-20739
- GADDIS, D. H.**  
Inorganic solid film lubricants Patent  
[NASA-CASE-XMF-03988] c 15 N71-21403
- GADDIS, J. L.**  
Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MS-C-18172-1] c 26 N80-19237
- GADDY, E. M.**  
Optimum performance spacecraft solar cell system  
[NASA-CASE-GSC-10669-1] c 03 N72-20031
- GADE, D. W.**  
Temperature regulation circuit Patent  
[NASA-CASE-XNP-02792] c 14 N71-28958
- GAETANO, G.**  
Fast scan control for deflection type mass spectrometers  
[NASA-CASE-LAR-11428-1] c 35 N74-34857
- GAHN, R. F.**  
Analytical test apparatus and method for determining oxide content of alkali metal Patent  
[NASA-CASE-XLE-01997] c 06 N71-23527  
Gels as battery separators for soluble electrode cells  
[NASA-CASE-LEW-12364-1] c 44 N77-22606  
Zirconium carbide as an electrocatalyst for the chromium-chromic redox couple  
[NASA-CASE-LEW-13246-1] c 44 N83-27344  
Negative electrode catalyst for the iron-chromium REDOX energy storage system  
[NASA-CASE-LEW-14028-1] c 44 N84-32909

## GAISER, E. E.

Color television systems using a single gun color cathode ray tube Patent  
[NASA-CASE-NPO-10098] c 09 N71-28618

## GALE, G. P.

Flow rate switch  
[NASA-CASE-NPO-10722] c 09 N72-20199

## GALLAGHER, B. D.

Increased voltage photovoltaic cell  
[NASA-CASE-NPO-16155-1] c 44 N84-20917

## GALLAGHER, H. E.

Construction and method of arranging a plurality of ion engines to form a cluster Patent  
[NASA-CASE-XNP-02923] c 28 N71-23081  
High efficiency ionizer assembly Patent  
[NASA-CASE-XNP-01954] c 28 N71-28850

## GALLO, A. J.

Rapid sync acquisition system Patent  
[NASA-CASE-NPO-10214] c 10 N71-26577

## GALLOWAY, C. W.

Gas-to-hydraulic power converter  
[NASA-CASE-MSC-18794-1] c 44 N83-14693

## GAMMELL, P. M.

Hyperthermia heating apparatus  
[NASA-CASE-NPO-14549-2] c 52 N82-33996

## GANGULI, P. S.

Coal desulfurization process  
[NASA-CASE-NPO-13937-1] c 44 N78-31527

## GARAVAGLIA, A. P.

Shoulder harness and lap belt restraint system  
[NASA-CASE-ARC-10519-2] c 05 N75-25915

## GARBA, J. A.

Pressure seal Patent  
[NASA-CASE-NPO-10796] c 15 N71-27068

## GARCIA, R. D.

Radiative cooler  
[NASA-CASE-NPO-15465-1] c 34 N84-22903

## GARD, L. H.

Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421

## GARDNER, D. E.

Wire grid forming apparatus Patent  
[NASA-CASE-XLE-00023] c 15 N70-33330

## GARDNER, J. N.

Technique of elbow bending small jacketed transfer lines Patent  
[NASA-CASE-XNP-10475] c 15 N71-24679

## GARDNER, M. R.

Heating and cooling system  
[NASA-CASE-LAR-12393-1] c 34 N83-34221

## GARDNER, M. S.

Differential pressure cell Patent  
[NASA-CASE-XAC-00042] c 14 N70-34816

## GARDOS, M. N.

Refractory porcelain enamel passive control coating for high temperature alloys  
[NASA-CASE-MFS-22324-1] c 27 N75-27160

## GARFEIN, A.

Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334

Electricity measurement devices employing liquid crystalline materials  
[NASA-CASE-ERC-10275] c 26 N72-25680

Semiconductor transducer device  
[NASA-CASE-ERC-10087-2] c 14 N72-31446

## GARMIRE, E. M.

Optical frequency waveguide Patent  
[NASA-CASE-HQN-10541-1] c 07 N71-26291

Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135

Optical frequency waveguide and transmission system Patent  
[NASA-CASE-HQN-10541-4] c 16 N71-27183

Optical frequency waveguide and transmission system  
[NASA-CASE-HQN-10541-3] c 23 N72-23695

## GARMIRE, G.

X-ray position detector  
[NASA-CASE-NPO-12087-1] c 74 N81-19898

## GARNER, H. D.

Jet shoes  
[NASA-CASE-XLA-08491] c 05 N69-21380

Dynamic precession damper for spin stabilized vehicles Patent  
[NASA-CASE-XLA-01989] c 21 N70-34295

Attitude orientation of spin-stabilized space vehicles Patent  
[NASA-CASE-XLA-00281] c 21 N70-36943

Fluid pressure amplifier and system  
[NASA-CASE-LAR-10868-1] c 33 N74-11050

Magnetic heading reference  
[NASA-CASE-LAR-11387-1] c 04 N76-20114

Magnetic heading reference  
[NASA-CASE-LAR-11387-2] c 04 N77-19056

Magnetic heading reference  
[NASA-CASE-LAR-12638-1] c 04 N84-14132

## Heads up display

[NASA-CASE-LAR-12630-1] c 06 N84-27733

Volumetric fuel quantity gauge  
[NASA-CASE-LAR-13147-1] c 35 N84-32787

## GARRAHAN, N. M.

Solid state pulse generator with constant output width, for variable input width, in nanosecond range Patent  
[NASA-CASE-XGS-03427] c 10 N71-23029

Resettable monostable pulse generator Patent  
[NASA-CASE-GSC-11139] c 09 N71-27016

## GARREN, J. F., JR.

Mechanical stability augmentation system Patent  
[NASA-CASE-XLA-06339] c 02 N71-13422

Filtering technique based on high-frequency plant modeling for high-gain control  
[NASA-CASE-LAR-12215-1] c 08 N79-23097

## GARRETT, H.

A dc to dc converter  
[NASA-CASE-MFS-25430-1] c 33 N84-16453

## GARWOOD, D. C.

Ionization vacuum gauge Patent  
[NASA-CASE-XNP-00646] c 14 N70-35666

## GARY, B. L.

CAT altitude avoidance system  
[NASA-CASE-NPO-15351-1] c 06 N83-10040

System for indicating fuel-efficient aircraft altitude  
[NASA-CASE-NPO-15351-2] c 06 N84-34443

## GASSER, M. G.

Stirling cycle cryogenic cooler  
[NASA-CASE-GSC-12697-1] c 31 N82-11312

Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574

## GASTON, D. H.

Masking device Patent  
[NASA-CASE-XNP-02092] c 15 N70-42033

## GASTON, R. P., JR.

Landing gear Patent  
[NASA-CASE-XMF-01174] c 02 N70-41589

## GATES, D. W.

Stabilized zinc oxide coating compositions Patent  
[NASA-CASE-XMF-07770-2] c 18 N71-26772

Synthesis of zinc titanate pigment and coatings containing the same  
[NASA-CASE-MFS-13532] c 18 N72-17532

Method of preparing zinc orthotitanate pigment  
[NASA-CASE-MFS-23345-1] c 27 N77-30237

## GATES, J. D.

Self-erecting reflector Patent  
[NASA-CASE-XGS-09190] c 31 N71-16102

## GATES, L. E., JR.

Method for fiberizing ceramic materials Patent  
[NASA-CASE-XNP-00597] c 18 N71-23088

## GATEWOOD, J. R.

Thin film temperature sensor and method of making same  
[NASA-CASE-NPO-11775] c 26 N72-28761

## GATLIN, J. A.

Cartwheel satellite synchronization system Patent  
[NASA-CASE-XGS-05579] c 31 N71-15676

Gravity gradient attitude control system Patent  
[NASA-CASE-GSC-10555-1] c 21 N71-27324

Sampled data controller Patent  
[NASA-CASE-GSC-10554-1] c 08 N71-29033

## GATTI, A.

Catalyst for growth of boron carbide single crystal whiskers  
[NASA-CASE-XHQ-03903] c 15 N69-21922

## GAUSE, R. L.

Restraint system for ergometer  
[NASA-CASE-MFS-21046-1] c 14 N73-27377

## Ergometer

[NASA-CASE-MFS-21109-1] c 05 N73-27941

Tilting table for ergometer and for other biomedical devices  
[NASA-CASE-MFS-21010-1] c 05 N73-30078

## Manual actuator

[NASA-CASE-MFS-21481-1] c 37 N74-18127

Conductive elastomeric extensometer  
[NASA-CASE-MFS-21049-1] c 52 N74-27864

## Ergometer calibrator

[NASA-CASE-MFS-21045-1] c 35 N75-15932

## GAUTHIER, M. K.

Method for analyzing radiation sensitivity of integrated circuits  
[NASA-CASE-NPO-14350-1] c 33 N80-14332

## GAVALAS, G. R.

Coal desulfurization process  
[NASA-CASE-NPO-13937-1] c 44 N78-31527

## GAVIRA, H. E.

Failsafe multiple transformer circuit configuration  
[NASA-CASE-NPO-11078] c 09 N72-25262

## GAVRILLIS, T. G.

Turnstile and flared cone UHF antenna  
[NASA-CASE-LAR-10970-1] c 33 N76-14372

## GAY, C. H., JR.

Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560

## GDULA, W. G.

Recovery of radiation damaged solar cells through thermal annealing  
[NASA-CASE-XGS-04047-2] c 03 N72-11062

## GEBBEN, V. D.

Circuit for detecting initial systole and diastolic notch  
[NASA-CASE-LEW-11581-1] c 54 N75-13531

## GEDWILL, M. A.

Method of protecting the surface of a substrate  
[NASA-CASE-LEW-11696-1] c 37 N75-13261

Duplex aluminized coatings  
[NASA-CASE-LEW-11696-2] c 26 N75-19408

Coating with overlay metallic-cermet alloy systems  
[NASA-CASE-LEW-13639-2] c 26 N84-27855

Overlay metallic-cermet alloy coating systems  
[NASA-CASE-LEW-13639-1] c 26 N84-33555

## GEE, S. W.

Terminal guidance system  
[NASA-CASE-FRC-10049-1] c 04 N74-13420

## GEHRING, W. E.

Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
[NASA-CASE-XMS-01905] c 12 N71-21089

## GEIDEMAN, W. A., JR.

Electric arc light source having undercut recessed anode  
[NASA-CASE-ARC-10266-1] c 33 N75-29318

## GEIER, D. J.

Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152

## GEIPEL, D. H.

Omnidirectional acceleration device Patent  
[NASA-CASE-HQN-10780] c 14 N71-30265

## GEISE, P. E., JR.

FM/CW radar system  
[NASA-CASE-MFS-22234-1] c 32 N79-10264

## GELB, L. L.

Method of repairing discontinuity in fiberglass structures  
[NASA-CASE-LAR-10416-1] c 24 N74-30001

## GELDERLOOS, H. J. C.

Reconfiguring redundancy management  
[NASA-CASE-MSC-18498-1] c 60 N82-29013

## GELLES, R.

Wide angle long eye relief eyepiece Patent  
[NASA-CASE-XMS-06056-1] c 23 N71-24857

## GENTER, R. E.

Electronically resettable fuse Patent  
[NASA-CASE-XGS-11177] c 09 N71-27001

## GEORGE, T. R., JR.

Device for installing rocket engines  
[NASA-CASE-MFS-19220-1] c 20 N76-22296

## GERDTS, J. C.

Concentric differential gearing arrangement  
[NASA-CASE-ARC-10462-1] c 37 N74-27901

## GERINGER, H. J.

Induction furnace with perforated tungsten foil shielding Patent  
[NASA-CASE-XLE-04026] c 14 N71-23267

## GERMANN, E. F., JR.

Radiation direction detector including means for compensating for photocell aging Patent  
[NASA-CASE-XLA-00183] c 14 N70-40239

## GERTSMA, L. W.

Foldable conduit Patent  
[NASA-CASE-XLE-00620] c 32 N70-41579

## GETCHELL, D. E.

Pressure garment joint Patent  
[NASA-CASE-XMS-09638] c 05 N71-12344

## GETTELMAN, C. C.

High powered arc electrodes  
[NASA-CASE-LEW-11162-1] c 33 N74-12913

## GIACCONI, R.

X-ray reflection collimator adapted to focus X-radiation directly on a detector Patent  
[NASA-CASE-XHQ-04106] c 14 N70-40240

## GIANATASIO, A.

Adaptive polarization separation  
[NASA-CASE-LAR-12196-1] c 33 N81-26358

## GIANDOMENICO, A.

Millimeter wave radiometer for radio astronomy Patent  
[NASA-CASE-XNP-09832] c 30 N71-23723

High-torque open-end wrench  
[NASA-CASE-NPO-13541-1] c 37 N79-14383

## GIANNINI, G. M.

Combination automatic-starting electrical plasma torch and gas shutoff valve  
[NASA-CASE-XLE-10717] c 37 N75-29426

## GIBSON, F. W.

Contour surveying system Patent  
[NASA-CASE-XLA-08646] c 14 N71-17586



- Pressure operated electrical switch responsive to a pressure decrease after a pressure increase  
[NASA-CASE-LAR-10137-1] c 09 N72-22204
- GIBSON, J. C.**  
Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860
- GILFILL, C. E.**  
Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump  
[NASA-CASE-NPO-13663-1] c 35 N77-14406
- GILBERT, G. J.**  
Apparatus for ballasting high frequency transistors  
[NASA-CASE-XGS-05003] c 09 N69-24318
- GILBREATH, W. P.**  
Electrical conductivity cell and method for fabricating the same  
[NASA-CASE-ARC-10810-1] c 33 N76-19339
- GILCHRIST, C. E.**  
Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples Patent  
[NASA-CASE-XNP-05254] c 07 N71-20791
- GILES, R. M. F.**  
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170
- GILKISON, C. A.**  
Linear accelerator frequency control system Patent  
[NASA-CASE-XGS-05441] c 10 N71-22962
- GILL, W. L.**  
Burn rate testing apparatus  
[NASA-CASE-XMS-09690] c 33 N72-25913
- GILLERMAN, J. B.**  
Water management system and an electrolytic cell therefor Patent  
[NASA-CASE-MSC-10960-1] c 03 N71-24718
- GILLESPIE, W. JR.**  
Infrared scanner Patent  
[NASA-CASE-XLA-00120] c 21 N70-33181
- GILLESPIE, W. JR.**  
Passive communication satellite Patent  
[NASA-CASE-XLA-00210] c 30 N70-40309
- GILLESPIE, W. JR.**  
Alleviation of divergence during rocket launch Patent  
[NASA-CASE-XLA-00256] c 31 N71-15663
- GILLESPIE, W. JR.**  
Method of making an inflatable panel Patent  
[NASA-CASE-XLA-03497] c 15 N71-23052
- GILLETTE, R. B.**  
Plasma cleaning device  
[NASA-CASE-MFS-22906-1] c 75 N78-27913
- GILLEY, G. C.**  
Shared memory for a fault-tolerant computer  
[NASA-CASE-NPO-13139-1] c 60 N76-21914
- GILLEY, P. J.**  
Material fatigue testing system  
[NASA-CASE-MFS-20673] c 14 N73-20476
- GILLIGAN, J. E.**  
Method of preparing zinc orthotitanate pigment  
[NASA-CASE-MFS-23345-1] c 27 N77-30237
- GILLILAND, C. S.**  
Variable anodic thermal control coating  
[NASA-CASE-LAR-12719-1] c 44 N83-34449
- GILLMORE, W. F.**  
Method and apparatus for high resolution spectral analysis  
[NASA-CASE-NPO-10748] c 08 N72-20177
- GILMAN, M. M.**  
Flanged major modular assembly jig  
[NASA-CASE-MSC-19372-1] c 39 N76-31562
- GILREATH, M. C.**  
Omnidirectional microwave spacecraft antenna Patent  
[NASA-CASE-XLA-03114] c 09 N71-22888
- GILWEE, W. J.**  
Toughening reinforced epoxy composites with brominated polymeric additives  
[NASA-CASE-ARC-11427-1] c 24 N83-25791
- GILWEE, W. J., JR.**  
Honeycomb-laminate composite structure  
[NASA-CASE-ARC-10913-1] c 24 N78-15180
- GIN, B.**  
High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272
- GIN, W.**  
Apparatus and method for control of a solid fueled rocket vehicle Patent  
[NASA-CASE-XNP-00217] c 28 N70-38181
- GINER, J. D.**  
Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-1] c 33 N80-20487
- GINER, J. D.**  
Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-2] c 44 N81-29524
- GINSBURG, A.**  
Supercharged topping rocket propellant feed system  
[NASA-CASE-XLE-02062-1] c 20 N80-14188
- GIORGINI, E. A.**  
Self-contained breathing apparatus  
[NASA-CASE-MSC-14733-1] c 54 N76-24900
- GIOVANNETTI, A., JR.**  
High-temperature, high-pressure spherical segment valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817
- GIRALA, A. S.**  
Open type urine receptacle  
[NASA-CASE-MSC-12324-1] c 05 N72-22093
- GIRALA, A. S.**  
Open ended tubing cutters  
[NASA-CASE-MSC-18538-1] c 37 N82-26672
- GLASER, P. E.**  
Apparatus for measuring thermal conductivity Patent  
[NASA-CASE-XGS-01052] c 14 N71-15992
- GLASGOW, T. K.**  
Coating with overlay metallic-cermet alloy systems  
[NASA-CASE-LEW-13639-2] c 26 N84-27855
- GLASGOW, T. K.**  
Overlay metallic-cermet alloy coating systems  
[NASA-CASE-LEW-13639-1] c 26 N84-33555
- GLASSEY, E. A.**  
Line following servosystem Patent  
[NASA-CASE-XAC-00001] c 15 N71-28952
- GLAWE, G. E.**  
Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent  
[NASA-CASE-XLE-00266] c 14 N70-34156
- GLAWE, G. E.**  
Sensing probe  
[NASA-CASE-LEW-10281-1] c 14 N72-17327
- GLEASON, J. R.**  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- GLEKAS, L. P.**  
Compact solar still Patent  
[NASA-CASE-XMS-04533] c 15 N71-23086
- GLENN, C. G.**  
Manual actuator  
[NASA-CASE-MFS-21481-1] c 37 N74-18127
- GLENN, C. G.**  
Conductive elastomeric extensometer  
[NASA-CASE-MFS-21049-1] c 52 N74-27864
- GLENN, D. C.**  
Method of lubricating rolling element bearings Patent  
[NASA-CASE-XLE-09527] c 15 N71-17688
- GLENN, D. C.**  
Rolling element bearings Patent  
[NASA-CASE-XLE-09527-2] c 15 N71-26189
- GLOBUS, R. H.**  
Process of forming particles in a cryogenic path Patent  
[NASA-CASE-NPO-10250] c 23 N71-16212
- GLOMB, W. L.**  
Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773
- GLOMB, W. L.**  
Tracking receiver Patent  
[NASA-CASE-XGS-08679] c 10 N71-21473
- GLORIA, H. R.**  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21156
- GLORIA, H. R.**  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N76-32315
- GOERING, R. S.**  
Open tube guideway for high speed air cushioned vehicles  
[NASA-CASE-LAR-10256-1] c 85 N74-34672
- GOETZ, A. F. H.**  
Multispectral imaging and analysis system  
[NASA-CASE-NPO-13691-1] c 43 N79-17288
- GOETZ, A. F. H.**  
Portable reflectance spectrometer  
[NASA-CASE-NPO-13556-1] c 35 N84-33766
- GOETZ, C.**  
Quartz ball valve  
[NASA-CASE-NPO-14473-1] c 37 N80-23854
- GOLD, H.**  
Automotive gas turbine fuel control  
[NASA-CASE-LEW-12785-1] c 37 N78-24545
- GOLD, H. S.**  
Gas turbine engine fuel control  
[NASA-CASE-LEW-11187-1] c 28 N73-19793
- GOLDBERG, G. I.**  
Reaction wheel scanner Patent  
[NASA-CASE-XGS-02629] c 14 N71-21082
- GOLDBERG, J.**  
Automatic fault correction system for parallel signal channels Patent  
[NASA-CASE-XNP-03263] c 09 N71-18843
- GOLDEN, D. P., JR.**  
Contourograph system for monitoring electrocardiograms  
[NASA-CASE-MSC-13407-1] c 10 N72-20225
- GOLDEN, D. P., JR.**  
Apparatus and method for processing Korotkov sounds  
[NASA-CASE-MSC-13999-1] c 52 N74-26626
- GOLDMAN, G. C.**  
High powered arc electrodes  
[NASA-CASE-LEW-11162-1] c 33 N74-12913
- GOLDOWSKY, M.**  
Stirling cycle cryogenic cooler  
[NASA-CASE-GSC-12697-1] c 31 N82-11312
- GOLDOWSKY, M. P.**  
Linear magnetic bearings  
[NASA-CASE-GSC-12582-1] c 37 N81-16469
- GOLDOWSKY, M. P.**  
Reciprocating linear motor  
[NASA-CASE-GSC-12773-1] c 33 N83-12332
- GOLDOWSKY, M. P.**  
Linear magnetic bearings  
[NASA-CASE-GSC-12582-2] c 37 N83-13460
- GOLDOWSKY, M. P.**  
Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574
- GOLDSBERRY, R. E.**  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21156
- GOLDSBERRY, R. E.**  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N76-32315
- GOLDSCHMIED, F. R.**  
Shear modulated fluid amplifier Patent  
[NASA-CASE-MFS-10412] c 12 N71-17578
- GOLDSMITH, J. V.**  
Solar battery with interconnecting means for plural cells Patent  
[NASA-CASE-XNP-06506] c 03 N71-11050
- GOLDSMITH, J. V.**  
Solid state matrices  
[NASA-CASE-NPO-10591] c 03 N72-22041
- GOLDSMITH, J. V.**  
Solar cell panels with light transmitting plate  
[NASA-CASE-NPO-10747] c 03 N72-22042
- GOLDSTEIN, A. W.**  
Supersonic fan blading  
[NASA-CASE-LEW-11402-1] c 07 N74-28226
- GOLDSTEIN, B. E.**  
Ion mass spectrometer  
[NASA-CASE-NPO-15423-1] c 35 N84-28016
- GOLDSTEIN, C. S.**  
Dynamic capacitor having a peripherally driven element and system incorporating the same  
[NASA-CASE-XNP-02899-1] c 33 N79-21265
- GOLDSTEIN, H. E.**  
Silica reusable surface insulation  
[NASA-CASE-ARC-10721-1] c 27 N76-22376
- GOLDSTEIN, H. E.**  
Reaction cured glass and glass coatings  
[NASA-CASE-ARC-11051-1] c 27 N78-32260
- GOLDSTEIN, H. E.**  
Fibrous refractory composite insulation  
[NASA-CASE-ARC-11169-1] c 24 N79-24062
- GOLDSTEIN, H. E.**  
Adjustable high emittance gap filler  
[NASA-CASE-ARC-11310-1] c 27 N82-24339
- GOLDSTEIN, H. E.**  
High temperature glass thermal control structure and coating  
[NASA-CASE-ARC-11164-1] c 44 N83-34448
- GOLDSTEIN, I.**  
Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028
- GOLDSTEIN, R.**  
Optical gyroscope system  
[NASA-CASE-NPO-14258-1] c 35 N81-33448
- GOLDSTEIN, R.**  
Ion mass spectrometer  
[NASA-CASE-NPO-15423-1] c 35 N84-28016
- GOLDSTEIN, R. M.**  
Correlation function apparatus Patent  
[NASA-CASE-XNP-00746] c 07 N71-21476
- GOLDSTEIN, R. M.**  
Method and apparatus for mapping planets  
[NASA-CASE-NPO-11001] c 07 N72-21118
- GOLDSTEIN, R. M.**  
Binary coded sequential acquisition ranging system  
[NASA-CASE-NPO-11194] c 08 N72-25209
- GOLDSTEIN, R. M.**  
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system  
[NASA-CASE-NPO-11302-1] c 07 N73-13149
- GOLDSTEIN, R. M.**  
Method and apparatus for a single channel digital communications system  
[NASA-CASE-NPO-13202-2] c 32 N74-10132
- GOLDSTEIN, R. M.**  
Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267
- GOLDSTEIN, R. M.**  
Method and apparatus for contour mapping using synthetic aperture radar  
[NASA-CASE-NPO-15939-1] c 43 N83-20324
- GOLDSTEIN, R. M.**  
Synthetic aperture radar target simulator  
[NASA-CASE-NPO-15024-1] c 32 N84-27951
- GONZALEZ-SANABRIA, O. D.**  
Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531
- GOODLOE, R. R.**  
Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310
- GOODRICH, J. A.**  
Locking device for turbine rotor blades Patent  
[NASA-CASE-XNP-00816] c 28 N71-28928
- GOODWIN, F. E.**  
Opto-mechanical subsystem with temperature compensation through isothermal design  
[NASA-CASE-GSC-12059-1] c 35 N77-27366

## GOODWIN, R. A.

Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent  
[NASA-CASE-XGS-08269] c 23 N71-26206

## GOODYER, M. J.

Stagnation pressure probe  
[NASA-CASE-LAR-11139-1] c 35 N74-32878

## GOOKIN, R. E.

System for synchronizing synthesizers of communication systems  
[NASA-CASE-GSC-12148-1] c 32 N79-20296

## GORADIA, C. P.

Method of making a high voltage V-groove solar cell  
[NASA-CASE-LEW-13401-1] c 44 N82-29709  
High voltage planar multijunction solar cell  
[NASA-CASE-LEW-13400-1] c 44 N82-31784  
High voltage v-groove solar cell  
[NASA-CASE-LEW-13401-2] c 44 N83-32177

## GORDON, B. L.

Television noise reduction device  
[NASA-CASE-MSC-12607-1] c 32 N75-21485

## GORDON, W. A.

Arc electrode of graphite with ball tip Patent  
[NASA-CASE-XLE-04788] c 09 N71-22987

## GORELICK, D.

Arterial pulse wave pressure transducer  
[NASA-CASE-GSC-11531-1] c 52 N74-27566

## GORSTEIN, M.

Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409

## GOSS, W.

Laser pulse detection method and apparatus  
[NASA-CASE-NPO-16030-1] c 36 N84-25037

## GOSS, W. C.

High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119  
Optical gyroscope system  
[NASA-CASE-NPO-14258-1] c 35 N81-33448  
Ranging system  
[NASA-CASE-NPO-15865-1] c 74 N83-12991  
Method for making a bonded single mode fiber optic wavelength coupler  
[NASA-CASE-NPO-15464-1] c 74 N83-25540

## GOULD, C. W.

Printed circuit board with bellows rivet connection Patent  
[NASA-CASE-XNP-05082] c 15 N70-41960

## GOULD, J. M.

Static inverters which sum a plurality of waves Patent  
[NASA-CASE-XMF-00683] c 08 N71-18752  
Acquisition and tracking system for optical radar  
[NASA-CASE-MFS-20125] c 16 N72-13437  
A dc to dc converter  
[NASA-CASE-MFS-25430-1] c 33 N84-16453

## GOULD, W. I., JR.

Millimeter wave antenna system Patent Application  
[NASA-CASE-GSC-10949-1] c 07 N71-28965

## GRAAB, J. W.

Analytical test apparatus and method for determining oxide content of alkali metal Patent  
[NASA-CASE-XLE-01997] c 06 N71-23527

## GRABOWSKI, J. P.

Target acquisition antenna  
[NASA-CASE-GSC-10064-1] c 10 N72-22235

## GRAESE, R. W.

Thermal protection system  
[NASA-CASE-MSC-18798-1] c 24 N82-26389

## GRAF, J. E.

Chemically rechargeable battery  
[NASA-CASE-NPO-16024-1] c 44 N84-23020

## GRAFF, J.

Amino acid analysis  
[NASA-CASE-NPO-12130-1] c 25 N75-14844

## GRAFSTEIN, D.

Fluidic-thermochromic display device Patent  
[NASA-CASE-ERC-10031] c 12 N71-18603

## GRAHAM, O. L.

Color television system  
[NASA-CASE-MSC-12148-1] c 07 N72-17109

## GRAHAM, R. A.

Portable reflectance spectrometer  
[NASA-CASE-NPO-13556-1] c 35 N84-33766

## GRAHAM, R. W.

Liquid storage tank venting device for zero gravity environment Patent  
[NASA-CASE-XLE-01449] c 15 N70-41646  
Curved film cooling admission tube  
[NASA-CASE-LEW-13174-1] c 34 N83-27144

## GRAN, A. A.

Venting device for pressurized space suit helmet Patent  
[NASA-CASE-XMS-09652-1] c 05 N71-26333

## GRANA, D.

Apparatus and process for microbial detection and enumeration  
[NASA-CASE-LAR-12709-1] c 35 N82-28604

## GRANA, D. C.

Remote water monitoring system  
[NASA-CASE-LAR-11973-1] c 35 N78-27384

Natural turbulence electrical power generator  
[NASA-CASE-LAR-11551-1] c 44 N80-29834

Vertical shaft windmill  
[NASA-CASE-LAR-12923-1] c 37 N84-12493

## GRANATA, R. L.

Sidereal frequency generator Patent  
[NASA-CASE-XGS-02610] c 14 N71-23174

## GRANETT, D.

Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948

Gravity enhanced acoustic levitation method and apparatus  
[NASA-CASE-NPO-16147-1] c 71 N84-16949

## GRANT, D. J.

Passively regulated water electrolysis rocket engine Patent  
[NASA-CASE-XGS-08729] c 28 N71-14044

Precision thrust gage Patent  
[NASA-CASE-XGS-02319] c 14 N71-22965

Fluid flow meter with comparator reference means Patent  
[NASA-CASE-XGS-01331] c 14 N71-22996

## GRANT, G. R.

Dual wavelength scanning Doppler velocimeter  
[NASA-CASE-ARC-10637-1] c 35 N75-16783

## GRANT, M. M.

Spacecraft attitude sensor  
[NASA-CASE-GSC-10890-1] c 21 N73-30640

## GRANT, P. A.

Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765

## GRANT, W. B.

Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137

## GRANTHAM, W. L.

Means for measuring the electron density gradients of the plasma sheath formed around a space vehicle Patent  
[NASA-CASE-XLA-06232] c 25 N71-20563

Antenna design for surface wave suppression Patent  
[NASA-CASE-XLA-10772] c 07 N71-28980

## GRAY, C. E.

Optical characteristics measuring apparatus Patent  
[NASA-CASE-XNP-08840] c 23 N71-16365

## GRAY, D. L.

Solar cell angular position transducer  
[NASA-CASE-LAR-11999-1] c 44 N80-18552

## GRAY, D. T.

Three-axis adjustable loading structure  
[NASA-CASE-FRC-10051-1] c 35 N74-13129

## GRAY, J. L.

Automatic lightning detection and photographic system  
[NASA-CASE-KSC-10728-1] c 14 N73-32319

## GRAY, N. C.

Fire extinguishing apparatus having a slidable mass for a penetrator nozzle  
[NASA-CASE-KSC-11064-1] c 31 N81-14137

## GRAY, O. E.

Hermetically sealable package for hybrid solid-state electronic devices and the like  
[NASA-CASE-MSC-20181-1] c 33 N82-28549

## GRAY, V. H.

Boiler for generating high quality vapor Patent  
[NASA-CASE-XLE-00785] c 33 N71-16104

## GRAY, V. H.

Ablative system  
[NASA-CASE-LEW-10359] c 33 N72-25911

## GRAY, V. H.

Ablative system  
[NASA-CASE-LEW-10359-2] c 33 N73-25952

Space vehicle with artificial gravity and earth-like environment  
[NASA-CASE-LEW-11101-1] c 31 N73-32750

## GRAYSON, J. H.

Voltage-current characteristic simulator Patent  
[NASA-CASE-XMS-01554] c 10 N71-10578

## GREBE, V. J.

Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01609] c 14 N71-10500

## GREEB, F. J.

Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041

## GREEN, A. T.

Method and apparatus for nondestructive testing of pressure vessels  
[NASA-CASE-NPO-12142-1] c 38 N76-28563

## GREEN, C. W., JR.

Rocket injector head  
[NASA-CASE-XMF-04592-1] c 20 N79-21125

## GREEN, E. D.

Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent  
[NASA-CASE-XMS-01315] c 09 N70-41675

## GREEN, G.

Thin wire pointing method  
[NASA-CASE-NPO-15789-1] c 31 N83-19947

## GREEN, K. A.

Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector  
[NASA-CASE-NPO-13568-1] c 32 N76-21365

Multifrequency broadband polarized horn antenna  
[NASA-CASE-NPO-14588-1] c 32 N81-25278

## GREEN, R. G.

Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692

## GREEN, R. G.

Layout tool Patent  
[NASA-CASE-FRC-10005] c 15 N71-26145

Method and apparatus for attaching physiological monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293

## GREEN, R. R.

Serial digital decoder Patent  
[NASA-CASE-NPO-10150] c 08 N71-24650

Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system  
[NASA-CASE-NPO-11302-1] c 07 N73-13149

Method and apparatus for a single channel digital communications system  
[NASA-CASE-NPO-11302-2] c 32 N74-10132

## GREEN, W. L.

Mass measuring system Patent  
[NASA-CASE-XMS-03371] c 05 N70-42000

## GREENBERG, J.

Combined electrolysis device and fuel cell and method of operation Patent  
[NASA-CASE-XLE-01645] c 03 N71-20904

Heat activated cell with alkali anode and alkali salt electrolyte Patent  
[NASA-CASE-LEW-11358] c 03 N71-26084

Heat activated cell Patent  
[NASA-CASE-LEW-11359] c 03 N71-28579

Method of making emf cell  
[NASA-CASE-LEW-11359-2] c 03 N72-20034

## GREENLEAF, J. E.

Thermistor holder for skin temperature measurements  
[NASA-CASE-ARC-10855-1] c 52 N77-10780

Sweat collection capsule  
[NASA-CASE-ARC-11031-1] c 52 N81-29763

## GREENWOOD, T. D.

Thermoset-thermoplastic aromatic polyamides  
[NASA-CASE-LAR-12723-1] c 27 N81-15107

Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746

## GREENWOOD, T. L.

Seismic displacement transducer Patent  
[NASA-CASE-XMF-00479] c 14 N70-34794

Condition and condition duration indicator Patent  
[NASA-CASE-XMF-01097] c 10 N71-16058

## GREGORY, D. A.

Apparatus for measuring charged particle beam  
[NASA-CASE-MFS-25641-1] c 72 N84-28575

## GREGORY, J. W.

Rocket motor system Patent  
[NASA-CASE-XLE-00323] c 28 N70-38505

Combustion chamber Patent  
[NASA-CASE-XLE-04857] c 28 N71-23968

Rocket thrust throttling system  
[NASA-CASE-LEW-10374-1] c 28 N73-13773

## GREGORY, T. J.

Rotating launch device for a remotely piloted aircraft  
[NASA-CASE-ARC-10979-1] c 09 N77-19076

## GRIEVE, S. M.

Apparatus for testing wiring harness by vibration generating means  
[NASA-CASE-MSC-15158-1] c 14 N72-17325

## GRIFFIN, C. E.

Particle analyzing method and apparatus  
[NASA-CASE-NPO-15292-1] c 35 N83-27184

## GRIFFIN, C. R.

Antenna deployment mechanism for use with a spacecraft  
[NASA-CASE-GSC-12331-1] c 18 N80-14183

## GRIFFIN, F. D.

Device for determining the accuracy of the flare on a flared tube  
[NASA-CASE-XKS-03495] c 14 N69-39785

Optical monitor panel Patent  
[NASA-CASE-XKS-03509] c 14 N71-23175

## GRIFFIN, R. N.

Apparatus for conducting flow electrophoresis in the substantial absence of gravity  
[NASA-CASE-MFS-21394-1] c 34 N74-27744

**GRIFFIN, W. S.**  
Fluid jet amplifier [NASA-CASE-XLE-03512] c 12 N69-21466  
Fluid jet amplifier Patent [NASA-CASE-XLE-09341] c 12 N71-28741

**GRIFFITH, G. E.**  
High intensity heat and light unit Patent [NASA-CASE-XLA-00141] c 09 N70-33312

**GRINER, D. B.**  
System for the measurement of ultra-low stray light levels [NASA-CASE-MFS-23513-1] c 74 N79-11865

**GRISAFFE, S. J.**  
Method of making a diffusion bonded refractory coating Patent [NASA-CASE-XLE-01604-2] c 15 N71-15610  
Nickel aluminate coated low alloy stainless steel [NASA-CASE-LEW-11267-1] c 17 N73-32414  
Method of protecting the surface of a substrate [NASA-CASE-LEW-11696-1] c 37 N75-13261  
Duplex aluminized coatings [NASA-CASE-LEW-11696-2] c 26 N75-19408  
Fused silicide coatings containing discrete particles for protecting niobium alloys [NASA-CASE-LEW-11179-1] c 27 N76-16229

**GRISWOLD, R. H., JR.**  
Dual output variable pitch turbofan actuation system [NASA-CASE-LEW-12419-1] c 07 N77-14025

**GROBMAN, J.**  
Electric propulsion engine test chamber Patent [NASA-CASE-XLE-00252] c 11 N70-34844

**GROHMANN, K.**  
Coal desulfurization by aqueous chlorination [NASA-CASE-NPO-14902-1] c 25 N82-29371

**GROOM, M. J.**  
Electromagnetic mirror drive system [NASA-CASE-XLA-03724] c 14 N69-27461  
Variable pulse width multiplier Patent [NASA-CASE-XLA-02850] c 09 N71-20447  
Annular momentum control device used for stabilization of space vehicles and the like [NASA-CASE-LAR-11051-1] c 15 N76-14158  
Magnetic suspension and pointing system [NASA-CASE-LAR-11889-2] c 37 N78-27424  
Magnetic suspension and pointing system [NASA-CASE-LAR-11889-1] c 35 N79-26372  
Rim inertial measuring system [NASA-CASE-LAR-12052-1] c 18 N81-29152

**GROSE, W. L.**  
Combustion detector [NASA-CASE-LAR-10739-1] c 14 N73-16484

**GROSS, C.**  
Method of temperature compensating semiconductor strain gages Patent [NASA-CASE-XLA-04555-1] c 14 N71-25892  
Infrared detectors [NASA-CASE-LAR-10728-1] c 14 N73-12445  
Electronically scanned pressure sensor module with in situ calibration capability [NASA-CASE-LAR-12230-1] c 35 N79-14347  
Self-correcting electronically scanned pressure sensor [NASA-CASE-LAR-12686-1] c 35 N84-14491

**GROSS, W. J.**  
Method of fabricating an object with a thin wall having a precisely shaped slit [NASA-CASE-LAR-10409-1] c 31 N74-21059

**GROTH, W. G.**  
Optical inspection apparatus Patent [NASA-CASE-XMF-00462] c 14 N70-34298

**GROVE, C. H.**  
Lightning current waveform measuring system [NASA-CASE-KSC-11018-1] c 33 N79-10337

**GROVES, W. O.**  
Method for the preparation of inorganic single crystal and polycrystalline electronic materials [NASA-CASE-XLE-02545-1] c 76 N79-21910

**GRUBBS, T. M.**  
Discrete local altitude sensing device Patent [NASA-CASE-XMS-03792] c 14 N70-41812  
Line cutter Patent [NASA-CASE-XMS-04072] c 15 N70-42017  
Tension measurement device Patent [NASA-CASE-XMS-04545] c 15 N71-22878  
Winch having cable position and load indicators Patent [NASA-CASE-MS-12052-1] c 15 N71-24599

**GRUBER, C. L.**  
Method and apparatus for optical modulating a light signal Patent [NASA-CASE-GSC-10216-1] c 23 N71-26722

**GRUBER, R. P.**  
Closed Loop solar array-ion thruster system with power control circuitry [NASA-CASE-LEW-12780-1] c 20 N79-20179  
Self-reconfiguring solar cell system [NASA-CASE-LEW-12586-1] c 44 N80-14472

Simplified dc to dc converter [NASA-CASE-LEW-13495-1] c 33 N84-33663

**GRUNBAUM, B. W.**  
Automatic multiple-sample applicator and electrophoresis apparatus [NASA-CASE-ARC-10991-1] c 25 N78-14104  
Microelectrophoretic apparatus and process [NASA-CASE-ARC-11121-1] c 25 N79-14169

**GRUNTHANER, F. J.**  
Photoelectron spectrometer with means for stabilizing sample surface potential [NASA-CASE-NPO-13772-1] c 35 N78-10429

**GUEST, S. H.**  
Method and apparatus for suppressing ignition overpressure in solid rocket propulsion systems [NASA-CASE-MFS-25843-1] c 20 N83-17588

**GUILLOTTE, R. J.**  
Infrared scanner Patent [NASA-CASE-XLA-00120] c 21 N70-33181

**GUISINGER, J. E.**  
Starting circuit for vapor lamps and the like Patent [NASA-CASE-XNP-01058] c 09 N71-12540  
Variable frequency nuclear magnetic resonance spectrometer Patent [NASA-CASE-XNP-09830] c 14 N71-26266  
High voltage transistor amplifier with constant current load [NASA-CASE-NPO-11023] c 09 N72-17155  
Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control [NASA-CASE-NPO-11317-2] c 36 N74-13205  
Magneto-optic detection system with noise cancellation [NASA-CASE-NPO-11954-1] c 35 N78-29421  
Thermomagnetic recording and magneto-optic playback system [NASA-CASE-NPO-10872-1] c 35 N79-16246  
Manganese bismuth films with narrow transfer characteristics for Curie-point switching [NASA-CASE-NPO-11336-1] c 76 N79-16678

**GUIST, L. R.**  
Solid medium thermal engine [NASA-CASE-ARC-10461-1] c 44 N74-33379

**GUM, J. S.**  
Tool for releasing optical elements [NASA-CASE-GSC-12794-1] c 37 N83-12434

**GUNGLE, R. L.**  
Self-sealing, unbonded, rocket motor nozzle closure Patent [NASA-CASE-XLA-02651] c 28 N70-41967

**GUNTER, W. D., JR.**  
Multiple pass reimagining optical system [NASA-CASE-ARC-10194-1] c 23 N73-20741  
Dual wavelength scanning Doppler velocimeter [NASA-CASE-ARC-10637-1] c 35 N75-16783  
Pseudo-backscatter laser Doppler velocimeter employing antiparallel-reflector in the forward direction [NASA-CASE-ARC-10970-1] c 36 N77-25501

**GUPTA, A.**  
Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect [NASA-CASE-NPO-14657-1] c 74 N81-17887  
Broadband optical radiation detector [US-PATENT-4,262,198] c 74 N83-19597

**GURTNER, C. A.**  
Ablation sensor [NASA-CASE-XLA-01781] c 14 N69-39975  
Pressurized cell micrometeoroid detector Patent [NASA-CASE-XLA-00936] c 14 N71-14996  
Dual measurement ablation sensor [NASA-CASE-LAR-10105-1] c 34 N74-15652

**GUSSOW, S. S.**  
Pseudo-noise test set for communication system evaluation [NASA-CASE-MFS-22671-1] c 35 N75-21582  
Method of and means for testing a tape record/playback system [NASA-CASE-MFS-22671-2] c 35 N77-17426

**GUSTAFSON, G. L.**  
Apparatus for measuring thermal conductivity Patent [NASA-CASE-XGS-01052] c 14 N71-15992

**GUSTINCIC, J. J.**  
Microwave limb sounder [NASA-CASE-NPO-14544-1] c 46 N82-12685

**GUTKOWSKI, G. P.**  
Liquid hydrogen polygeneration system and process [NASA-CASE-KSC-11304-1] c 28 N84-29017

**GUTSHALL, R. L.**  
Star scanner [NASA-CASE-GSC-11569-1] c 89 N74-30886

**GUY, J. T., SR.**  
Disk pack cleaning table Patent Application [NASA-CASE-LAR-10590-1] c 15 N70-26819

**GYORGAK, C. A.**  
Process for applying a protective coating for salt bath brazing Patent [NASA-CASE-XLE-00046] c 15 N70-33311  
Protective device for machine and metalworking tools Patent [NASA-CASE-XLE-01092] c 15 N71-22797  
Extrusion die for refractory metals Patent [NASA-CASE-XLE-06773] c 15 N71-23817

## H

**HABBAL, N. A.**  
Analog signal integration and reconstruction system Patent [NASA-CASE-NPO-10344] c 10 N71-26544  
System for quantizing graphic displays [NASA-CASE-NPO-10745] c 08 N72-22164

**HABRA, J. H.**  
Multiple varactor frequency doubler Patent [NASA-CASE-XMF-04958-1] c 10 N71-26414

**HADEK, V.**  
Apparatus and method for measuring the Seebeck coefficient and resistivity of materials [NASA-CASE-NPO-11749] c 14 N73-28486  
Durable antistatic coating for polymethylmethacrylate [NASA-CASE-NPO-13867-1] c 27 N78-14164

**HADLAND, W. O.**  
Control device Patent [NASA-CASE-XAC-10019] c 15 N71-23809  
Two degree inverted flexure [NASA-CASE-ARC-10345-1] c 15 N73-12488

**HADLEY, H. C., JR.**  
High field CdS detector for infrared radiation [NASA-CASE-LAR-11027-1] c 35 N74-18088

**HADT, W. F.**  
Shaft seal assembly for high speed and high pressure applications [NASA-CASE-LEW-11873-1] c 37 N79-22475

**HADY, W. F.**  
High speed, self-acting shaft seal [NASA-CASE-LEW-11274-1] c 37 N75-21631

**HAENNER, C. L.**  
Peen plating [NASA-CASE-GSC-11163-1] c 15 N73-32360  
Static coefficient test method and apparatus [NASA-CASE-GSC-11893-1] c 35 N76-31489

**HAERTHER, L. W.**  
Chassis unit insert tightening-extract device [NASA-CASE-XMS-01077-1] c 37 N79-33467

**HAUSSESMANN, W.**  
Velocity measurement system [NASA-CASE-MFS-23363-1] c 35 N78-32396  
Magnetic field control [NASA-CASE-MFS-23828-1] c 33 N82-26569

**HAFLE, R. S.**  
Digital plus analog output encoder [NASA-CASE-GSC-12115-1] c 62 N76-31946

**HAGEDORN, N. H.**  
Negative electrode catalyst for the iron-chromium REDOX energy storage system [NASA-CASE-LEW-14028-1] c 44 N84-32909

**HAGIHARA, F. S.**  
Frequency to analog converter Patent [NASA-CASE-XNP-07040] c 08 N71-12500

**HAGOOD, G. J., JR.**  
Function generator for synthesizing complex vibration mode patterns [NASA-CASE-LAR-10310-1] c 10 N73-20253

**HAINES, R. F.**  
Visual examination apparatus [NASA-CASE-ARC-10329-1] c 05 N73-26072  
Visual examination apparatus [US-PATENT-RE-28,921] c 52 N76-30793  
Optical instrument employing reticle having preselected visual response pattern formed thereon [NASA-CASE-ARC-10976-1] c 74 N77-22950  
Simulator scene display evaluation [NASA-CASE-ARC-11504-1] c 09 N84-16221

**HALE, R. R.**  
Solar energy modulator [NASA-CASE-NPO-15388-1] c 44 N84-28203

**HALEY, C. T.**  
Clock setter [NASA-CASE-LAR-11458-1] c 35 N76-16392

**HALEY, F. C.**  
Cavity radiometer Patent [NASA-CASE-XNP-08961] c 14 N71-24809  
Plural output optometric sample cell and analysis system [NASA-CASE-NPO-10233-1] c 74 N78-33913

**HALL, A. C.**  
Helmet weight simulator [NASA-CASE-LAR-12320-1] c 54 N81-27806

**HALL, D. F.**  
Apparatus for measuring electric field strength on the surface of a model vehicle Patent  
[NASA-CASE-XLE-02038] c 09 N71-16086

**HALL, E. D.**  
Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent  
[NASA-CASE-XGS-08269] c 23 N71-26206

**HALL, E. H.**  
Method for determining presence of OH in magnesium oxide  
[NASA-CASE-NPO-10774] c 06 N72-17095

**HALL, J. B., JR.**  
Surface roughness detector Patent  
[NASA-CASE-XLA-00203] c 14 N70-34161

Liquid waste feed system  
[NASA-CASE-LAR-10365-1] c 05 N72-27102

Automatic liquid inventory collecting and dispensing unit  
[NASA-CASE-LAR-11071-1] c 35 N75-19611

**HALL, J. F., JR.**  
Illumination system including a virtual light source Patent  
[NASA-CASE-HQN-10781] c 23 N71-30292

**HALL, J. H.**  
High powered arc electrodes  
[NASA-CASE-LEW-11162-1] c 33 N74-12913

**HALLAM, K. L.**  
Image tube  
[NASA-CASE-GSC-11602-1] c 33 N74-21850

**HALLBERG, F. C.**  
Turn on transient limiter Patent  
[NASA-CASE-GSC-10413] c 10 N71-26531

Method and apparatus for slicing crystals  
[NASA-CASE-GSC-12291-1] c 76 N80-18951

Crystal cleaving machine  
[NASA-CASE-GSC-12584-1] c 37 N82-32730

Workpiece positioning vise  
[NASA-CASE-GSC-12762-1] c 37 N84-28083

**HALLLOCK, J. M.**  
Multiple hologram recording and readout system Patent  
[NASA-CASE-ERC-10151] c 18 N71-29131

**HALLPERT, G.**  
Frangible electrochemical cell  
[NASA-CASE-XGS-10010] c 03 N72-15986

**HAMERMESH, C. L.**  
Ambient cure polyimide foams  
[NASA-CASE-ARC-11170-1] c 27 N79-11215

**HAMLET, J. F.**  
Automatic quadrature control and measuring system  
[NASA-CASE-MFS-21680-1] c 35 N74-21017

LC-oscillator with automatic stabilized amplitude via bias current control  
[NASA-CASE-MFS-21698-1] c 33 N74-26732

**HAMMACK, J. B.**  
Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938

Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664

**HAMMOND, A. D.**  
Variable sweep aircraft Patent  
[NASA-CASE-XLA-03659] c 02 N71-11041

**HANCHEY, K. K.**  
Device for preventing high voltage arcing in electron beam welding Patent  
[NASA-CASE-XMF-08522] c 15 N71-19486

**HAND, P. J.**  
Temperature compensated digital inertial sensor  
[NASA-CASE-NPO-13044-1] c 35 N74-15094

**HANDLYKKEN, M. B.**  
Shaft transducer having dc output proportional to angular velocity  
[NASA-CASE-NPO-15706-1] c 35 N84-28017

**HANGER, R. T.**  
Method and apparatus for fabricating improved solar cell modules  
[NASA-CASE-NPO-14416-1] c 44 N81-14389

**HANKINSON, T. W. E.**  
Fatigue-resistant shear pin  
[NASA-CASE-XLA-09122] c 15 N69-27505

**HANNA, M. F.**  
Dual polarity full wave dc motor drive Patent  
[NASA-CASE-XNP-07477] c 09 N71-26092

Event sequence detector  
[NASA-CASE-NPO-11703-1] c 10 N73-32144

High isolation RF signal selection switches  
[NASA-CASE-NPO-13081-1] c 33 N74-22814

Method and apparatus for precision control of radiometer  
[NASA-CASE-NPO-15398-1] c 35 N84-22931

**HANSEN, D. O.**  
Particle parameter analyzing system  
[NASA-CASE-XLE-06094] c 33 N78-17293

**HANSEN, G. R.**  
Phase sensitive guidance sensor for wire-following vehicles  
[NASA-CASE-NPO-15341-1] c 35 N84-33769

**HANSEN, G. R., JR.**  
Automatic vehicle location system  
[NASA-CASE-NPO-11850-1] c 32 N74-12912

Vehicle locating system utilizing AM broadcasting station carriers  
[NASA-CASE-NPO-13217-1] c 32 N75-26194

**HANSEN, I. G.**  
Flow angle sensor and read out system Patent  
[NASA-CASE-XLE-04503] c 14 N71-24884

Low level signal limiter  
[NASA-CASE-XLE-04791] c 32 N74-22096

**HANSEN, S.**  
Thrust dynamometer Patent  
[NASA-CASE-XLE-00702] c 14 N70-40203

Method of making screen by casting Patent  
[NASA-CASE-XLE-00953] c 15 N71-15968

Fluid flow control valve Patent  
[NASA-CASE-XLE-00703] c 15 N71-15967

Thrust dynamometer Patent  
[NASA-CASE-XLE-05260] c 14 N71-20429

**HANSON, M. P.**  
Turbo-machine blade vibration damper Patent  
[NASA-CASE-XLE-00155] c 28 N71-29154

**HANSON, P. W.**  
Lift balancing device  
[NASA-CASE-LAR-10348-1] c 11 N73-12264

**HANSON, R. N.**  
Tensile strength testing device Patent  
[NASA-CASE-XNP-05634] c 15 N71-24834

Hydroforming techniques using epoxy molds Patent  
[NASA-CASE-XLE-05641-1] c 15 N71-26346

**HANST, P. L.**  
Repetitively pulsed, wavelength selective laser Patent  
[NASA-CASE-ERC-10178] c 16 N71-24832

**HAQ, K. E.**  
A method for the deposition of beta-silicon carbide by isoeptaxy  
[NASA-CASE-ERC-10120] c 26 N69-33482

**HARADA, Y.**  
Method of preparing zinc orthotitanate pigment  
[NASA-CASE-MFS-23345-1] c 27 N77-30237

**HARALSON, H. S.**  
Ultrasonic scanning system for in-place inspection of brazed tube joints  
[NASA-CASE-MFS-20767-1] c 38 N74-15130

**HARAWAY, W. M., JR.**  
Thermal protection ablation spray system Patent  
[NASA-CASE-XLA-04251] c 18 N71-26100

Bonding method in the manufacture of continuous regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260

Vacuum pressure molding technique  
[NASA-CASE-LAR-10073-1] c 37 N76-24575

**HARD, T. M.**  
Optical systems having spatially invariant outputs  
[NASA-CASE-ERC-10248] c 14 N72-17323

**HARDGROVE, W. F.**  
Omni-directional anisotropic molecular trap Patent  
[NASA-CASE-XGS-00783] c 30 N71-17768

**HARDY, J. C.**  
Omnidirectional joint Patent  
[NASA-CASE-XMS-09635] c 05 N71-24623

Restraining mechanism  
[NASA-CASE-MSC-13054] c 54 N78-17677

**HARMAN, J. N., III**  
Pulse activated polarographic hydrogen detector Patent  
[NASA-CASE-XMF-06531] c 14 N71-17575

**HARMS, V. W.**  
Apparatus for automatically stabilizing the attitude of a nonguided vehicle  
[NASA-CASE-ARC-10134] c 30 N72-17873

**HAROULES, G. G.**  
Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774

Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437

Method and apparatus for measuring solar activity and atmospheric radiation effects  
[NASA-CASE-ERC-10278] c 14 N73-26432

**HARPER-TERVET, J.**  
Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950

**HARPER, C. A.**  
Thermal conductive connection and method of making same Patent  
[NASA-CASE-XMS-02087] c 09 N70-41717

**HARPER, L. L.**  
Laser Resonator  
[NASA-CASE-GSC-12565-1] c 36 N84-14509

**HARPER, P. M., SR.**  
Improved tire/wheel concept  
[NASA-CASE-LAR-11695-2] c 37 N80-18402

Tire/wheel concept  
[NASA-CASE-LAR-11695-2] c 37 N81-24443

**HARRAP, V.**  
Integrated circuit including field effect transistor and cermet resistor  
[NASA-CASE-GSC-10835-1] c 09 N72-33205

**HARRIGILL, W. T., JR.**  
Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter  
[NASA-CASE-LEW-12791-1] c 33 N78-32341

**HARRIS, D. M.**  
Recorder using selective noise filter  
[NASA-CASE-ERC-10112] c 07 N72-21119

**HARRIS, R. F.**  
Method for fabricating a mass spectrometer inlet leak  
[NASA-CASE-GSC-12077-1] c 35 N77-24455

**HARRIS, R. P.**  
Holding fixture for a hot stamping press  
[NASA-CASE-GSC-12619-1] c 37 N84-12491

High-temperature, high-pressure optical cell  
[NASA-CASE-MFS-26000-1] c 74 N84-16988

**HARRIS, R. V., JR.**  
Supersonic aircraft Patent  
[NASA-CASE-XLA-04451] c 02 N71-12243

**HARRISON, D. R.**  
Transducer circuit and catheter transducer Patent  
[NASA-CASE-ARC-10132-1] c 09 N71-24597

Diode-quad bridge circuit means  
[NASA-CASE-ARC-10384-3] c 33 N75-19520

Diode-quad bridge circuit means  
[NASA-CASE-ARC-10384-2] c 33 N75-25041

**HARRISON, E. S.**  
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles  
[NASA-CASE-ARC-11008-1] c 27 N78-31232

**HARRISON, F. L.**  
Life raft stabilizer  
[NASA-CASE-MSC-12393-1] c 02 N73-26006

**HARRISON, R. G., JR.**  
Pressure variable capacitor  
[NASA-CASE-XNP-09752] c 14 N69-21541

Temperature telemetric transmitter Patent  
[NASA-CASE-NPO-10649] c 07 N71-24840

**HARSTAD, K. G.**  
Isotope separation using metallic vapor lasers  
[NASA-CASE-NPO-13550-1] c 36 N77-26477

**HART-SMITH, L. J.**  
Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859

**HARTENSTEIN, R. G.**  
Accelerometer with FM output Patent  
[NASA-CASE-XLA-00492] c 14 N70-34799

Variable time constant smoothing circuit Patent  
[NASA-CASE-XGS-01983] c 10 N70-41964

**HARTING, D. R.**  
Strain gage Patent Application  
[NASA-CASE-FRC-10053] c 14 N70-35587

**HARTMANN, M. J.**  
Supercharged topping rocket propellant feed system  
[NASA-CASE-XLE-02062-1] c 20 N80-14188

**HARTOP, R. W.**  
Reflex feed system for dual frequency antenna with frequency cutoff means  
[NASA-CASE-NPO-14022-1] c 32 N78-31321

Waveguide cooling system  
[NASA-CASE-NPO-15401-1] c 32 N83-27085

**HARVEY, G. A.**  
Maksutov spectrograph Patent  
[NASA-CASE-XLA-10402] c 14 N71-29041

Apparatus for photographing meteors  
[NASA-CASE-LAR-10226-1] c 14 N73-19419

**HARVEY, W. D.**  
Heat sensing instrument Patent  
[NASA-CASE-XLA-01551] c 14 N71-22989

**HARWELL, R. J.**  
Nonflammable coating compositions  
[NASA-CASE-MFS-20488-2] c 27 N74-17283

**HASBACH, W. A.**  
Solid state matrices  
[NASA-CASE-NPO-10591] c 03 N72-22041

**HASKELL, R. E.**  
Optical process for producing classification maps from multispectral data  
[NASA-CASE-MSC-14472-1] c 43 N77-10584

Interactive color display for multispectral imagery using correlation clustering  
[NASA-CASE-MSC-16253-1] c 32 N79-20297

**HASSAN, A. A.**  
Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092

**HASSON, D. F.**  
Space and atmospheric reentry vehicle Patent  
[NASA-CASE-XGS-00260] c 31 N70-37924

- HATAKEYAMA, L. F.**  
Method and system for ejecting fairing sections from a rocket vehicle  
[NASA-CASE-GSC-10590-1] c 31 N73-14853
- HATCH, J. E.**  
Energy conversion apparatus Patent  
[NASA-CASE-XLE-00212] c 03 N70-34134
- HATCHER, N. M.**  
Electromagnetic mirror drive system  
[NASA-CASE-XLA-03724] c 14 N69-27461  
Infrared scanner Patent  
[NASA-CASE-XLA-00120] c 21 N70-33181  
Automatic balancing device Patent  
[NASA-CASE-LAR-10774] c 10 N71-13545  
Altitude sensor for space vehicles Patent  
[NASA-CASE-XLA-00793] c 21 N71-22880
- HATFIELD, J. J.**  
Integrated time shared instrumentation display Patent  
[NASA-CASE-XLA-01952] c 08 N71-12507
- HATHAWAY, M. E.**  
Frangible tube energy dissipation Patent  
[NASA-CASE-XLA-00754] c 15 N70-34850
- HAUGE, G.**  
Low distortion automatic phase control circuit  
[NASA-CASE-MFS-21671-1] c 33 N74-22885
- HAURY, V. E.**  
Hydrazinium nitroformate propellant stabilized with nitroguanidine  
[NASA-CASE-NPO-12000] c 27 N72-25699  
Hydrazinium nitroformate propellant with saturated polymeric hydrocarbon binder  
[NASA-CASE-NPO-12015] c 27 N73-16764
- HAUSER, J. A.**  
High pressure gas filter system Patent  
[NASA-CASE-MFS-12806] c 14 N71-17588  
High pressure helium purifier Patent  
[NASA-CASE-XMF-06888] c 15 N71-24044
- HAVENS, D. E.**  
Meter for use in detecting tension in straps having predetermined elastic characteristics  
[NASA-CASE-MFS-22189-1] c 35 N75-19615
- HAVENS, S. J.**  
Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988
- HAWKINS, C. A.**  
System for the measurement of ultra-low stray light levels  
[NASA-CASE-MFS-23513-1] c 74 N79-11865
- HAWLEY, J. J.**  
Method of erasing target material of a vidicon tube or the like Patent  
[NASA-CASE-XNP-06028] c 09 N71-23189
- HAWLEY, W. W.**  
Omnidirectional acceleration device Patent  
[NASA-CASE-HQN-10780] c 14 N71-30265
- HAY, R. E.**  
Method for terminal position determination in Earth terminal-to-satellite burst acquisition and synchronization  
[NASA-CASE-LEW-13893-1] c 32 N83-30832
- HAYDEN, R. R.**  
Magnetic counter Patent  
[NASA-CASE-XNP-06836] c 09 N71-12515
- HAYNES, D. P.**  
Remote water monitoring system  
[NASA-CASE-LAR-11973-1] c 35 N78-27384
- HAYNES, J. L.**  
Ultrasonic scanning system for in-place inspection of brazed tube joints  
[NASA-CASE-MFS-20767-1] c 38 N74-15130
- HAYNIE, C. C.**  
Variable contour securing system  
[NASA-CASE-MSC-16270-1] c 37 N78-27423  
Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492
- HAYNIG, C. C.**  
Apparatus for positioning modular components on a vertical or overhead surface  
[NASA-CASE-LAR-11465-1] c 37 N78-21554
- HAYNOS, J. G.**  
Interconnection of solar cells Patent  
[NASA-CASE-XGS-01475] c 03 N71-11058  
Frangible electrochemical cell  
[NASA-CASE-XGS-10010] c 03 N72-15986
- HAYS, L. G.**  
Fluid phase analyzer Patent  
[NASA-CASE-NPO-10691] c 14 N71-26199  
Two phase flow system with discrete impinging two-phase jets  
[NASA-CASE-NPO-11556] c 12 N72-25292  
Observation window for a gas confining chamber  
[NASA-CASE-NPO-10890] c 11 N73-12265  
Flow control valve  
[NASA-CASE-NPO-11951-1] c 37 N74-21065
- HEARN, C. P.**  
Wideband VCO with high phase stability Patent  
[NASA-CASE-XLA-03893] c 10 N71-27271  
Multichannel logarithmic RF level detector  
[NASA-CASE-LAR-11021-1] c 32 N76-14321  
Phase modulating with odd and even finite power series of a modulating signal  
[NASA-CASE-LAR-11607-1] c 32 N77-14292
- HEBERLIQ, J. C.**  
Survival couch Patent  
[NASA-CASE-XLA-00118] c 05 N70-33285
- HECHT, R.**  
Apparatus for absolute pressure measurement  
[NASA-CASE-LAR-10000] c 14 N73-30394
- HECKELMAN, J. D.**  
Multialarm summary alarm Patent  
[NASA-CASE-XLE-03061-1] c 10 N71-24798
- HECKLER, C. H.**  
Mercury capillary interrupter Patent  
[NASA-CASE-XNP-02251] c 12 N71-20896  
Method for making conductors for ferrite memory arrays  
[NASA-CASE-LAR-10994-1] c 24 N75-13032
- HEDGEPEETH, J. M.**  
Foldable beam  
[NASA-CASE-LAR-12077-1] c 31 N81-25259
- HEDLUND, R. C.**  
Precision rectifier with FET switching means Patent  
[NASA-CASE-ARC-10101-1] c 09 N71-33109  
Self-tuning bandpass filter  
[NASA-CASE-ARC-10264-1] c 09 N73-20231
- HEER, E.**  
Pressure seal Patent  
[NASA-CASE-NPO-10796] c 15 N71-27068
- HEFFERMAN, J. T.**  
Surface finishing  
[NASA-CASE-MSC-12631-3] c 27 N81-14077
- HEFFERNAN, J. T.**  
Surface finishing  
[NASA-CASE-MSC-12631-1] c 24 N77-28225
- HEFLINGER, L. O.**  
Spatial filter for Q-switched lasers  
[NASA-CASE-LEW-12164-1] c 36 N77-32478  
Microbalance  
[NASA-CASE-MSC-11242] c 35 N78-17358
- HEIDMANN, M. F.**  
Injector for bipropellant rocket engines Patent  
[NASA-CASE-XMF-00148] c 28 N70-38710  
Instrument for the quantitative measurement of radiation at multiple wave lengths Patent  
[NASA-CASE-XLE-00011] c 14 N70-41946  
Control of transverse instability in rocket combustors Patent  
[NASA-CASE-XLE-04603] c 33 N71-21507  
Burning rate control of solid propellants Patent  
[NASA-CASE-XLE-03494] c 27 N71-21819
- HEIDT, M. F.**  
Ultrasable calibrated light source  
[NASA-CASE-MSC-12293-1] c 14 N72-27411
- HEIER, W. C.**  
Method for molding compounds Patent  
[NASA-CASE-XLA-01091] c 15 N71-10672  
Evacuated displacement compression molding  
[NASA-CASE-LAR-10782-1] c 31 N74-14133  
Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article  
[NASA-CASE-LAR-10489-1] c 31 N74-18124  
Method of laminating structural members  
[NASA-CASE-XLA-11028-1] c 24 N74-27035  
Molding apparatus  
[NASA-CASE-LAR-10489-2] c 31 N74-32920  
Evacuated, displacement compression mold  
[NASA-CASE-LAR-10782-2] c 31 N75-13111  
Molded composite pyrogen igniter for rocket motors  
[NASA-CASE-LAR-12018-1] c 20 N78-24275
- HEIMBUCH, A. H.**  
Chromato-fluorographic drug detector  
[NASA-CASE-ARC-10633-1] c 25 N74-26947  
Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341
- HEIMERL, G. J.**  
Extensometer frame  
[NASA-CASE-XLA-10322] c 15 N72-17452
- HEIN, L. A.**  
Mechanical thermal motor  
[NASA-CASE-MFS-23062-1] c 37 N77-12402  
Spherical bearing  
[NASA-CASE-MFS-23447-1] c 37 N79-11404  
Amplified wind turbine apparatus  
[NASA-CASE-MFS-23830-1] c 44 N82-24639  
Resilient seal ring assembly with spring means applying force to wedge member  
[NASA-CASE-MFS-25678-1] c 37 N84-11497
- HEINDL, J. C.**  
Fluid lubricant system Patent  
[NASA-CASE-XNP-03972] c 15 N71-23048
- HEINEMANN, K.**  
Method of forming aperture plate for electron microscope  
[NASA-CASE-ARC-10448-2] c 74 N75-12732  
Electron microscope aperture system  
[NASA-CASE-ARC-10448-3] c 35 N77-14408
- HEINEY, O. K.**  
Self-obturator, gas operated launcher  
[NASA-CASE-NPO-11013] c 11 N72-22247
- HEISMAN, R. M.**  
Tube dimpling tool Patent  
[NASA-CASE-XMS-06876] c 15 N71-21536  
Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492
- HELBERT, W. B., JR.**  
Method of repairing discontinuity in fiberglass structures  
[NASA-CASE-LAR-10416-1] c 24 N74-30001
- HELD, D. N.**  
Synthetic aperture radar target simulator  
[NASA-CASE-NPO-15024-1] c 32 N84-27951
- HELLBAUM, R. F.**  
Logic AND gate for fluid circuits Patent  
[NASA-CASE-XLA-07391] c 12 N71-17579  
Technique of duplicating fragile core  
[NASA-CASE-XLA-07829] c 15 N72-16329  
Fluid pressure amplifier and system  
[NASA-CASE-LAR-10868-1] c 33 N74-11050
- HELLER, C.**  
Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609
- HELLER, J. A.**  
Apparatus and method for reducing thermal stress in a turbine rotor  
[NASA-CASE-LEW-12232-1] c 07 N79-10057
- HELLMANN, R. F.**  
Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
[NASA-CASE-XMS-01905] c 12 N71-21089
- HELMAN, D. D.**  
Method for repair of thin glass coatings  
[NASA-CASE-KSC-11097-1] c 27 N82-33520
- HELMES, C. R.**  
Prosthetic urinary sphincter  
[NASA-CASE-MFS-23717-1] c 52 N81-25660
- HENDEL, F. J.**  
Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil  
[NASA-CASE-NPO-08835-1] c 27 N78-33228
- HENDERSON, M. E.**  
Gas chromatograph injection system  
[NASA-CASE-ARC-10344-2] c 35 N75-26334
- HENDRICKS, H. D.**  
Method of detecting oxygen in a gas  
[NASA-CASE-LAR-10668-1] c 06 N73-16106
- HENLEY, W. H.**  
Method of fabricating an object with a thin wall having a precisely shaped slit  
[NASA-CASE-LAR-10409-1] c 31 N74-21059
- HENNIGAN, T. J.**  
Apparatus for measuring swelling characteristics of membranes  
[NASA-CASE-XGS-03865] c 14 N69-21363  
Prevention of pressure build-up in electrochemical cells Patent  
[NASA-CASE-XGS-01419] c 03 N70-41884  
Non-magnetic battery case Patent  
[NASA-CASE-XGS-00886] c 03 N71-11053  
Method and apparatus for battery charge control Patent  
[NASA-CASE-XGS-05432] c 03 N71-19438  
Sealing device for an electrochemical cell Patent  
[NASA-CASE-XGS-02630] c 03 N71-22974  
Sealed electrochemical cell provided with a flexible casing Patent  
[NASA-CASE-XGS-01513] c 03 N71-23336
- HENRY, A. W.**  
Dicyanocetylene polymers Patent  
[NASA-CASE-XNP-03250] c 06 N71-23500
- HENRY, B. Z., JR.**  
Variable geometry manned orbital vehicle Patent  
[NASA-CASE-XLA-03691] c 31 N71-15674
- HENRY, V. F.**  
Systems and methods for determining radio frequency interference  
[NASA-CASE-GSC-12150-1] c 32 N79-11265
- HEPNER, T. E.**  
Auto covariance computer  
[NASA-CASE-LAR-12968-1] c 35 N83-34273
- HEPPNER, J. P.**  
Wide range linear fluxgate magnetometer Patent  
[NASA-CASE-XGS-01587] c 14 N71-15962

## HERBELL, T. P.

- Gas purged dry box glove Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080
- Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent  
[NASA-CASE-XLE-03940] c 18 N71-26153
- Refractory metal base alloy composites  
[NASA-CASE-XLE-03940-2] c 17 N72-28536
- HERGENROTHER, P. M.  
Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups  
[NASA-CASE-LAR-12838-1] c 27 N83-34040
- Ethynyl and substituted ethynyl-terminated polysulfones  
[NASA-CASE-LAR-12931-1] c 27 N84-22747
- Phenox resins containing pendant ethynyl groups and cured resins therefrom  
[NASA-CASE-LAR-13262-1] c 27 N84-24805
- Sulfone-ester polymers containing pendant ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987
- Ethynyl-terminated ester oligomers and polymers therefrom  
[NASA-CASE-LAR-13118-1] c 27 N84-28988
- HERMAN, C. F.  
Differential pulse code modulation  
[NASA-CASE-MS-C-12506-1] c 32 N77-12239
- HERMANN, A. M.  
Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent  
[NASA-CASE-NPO-10373] c 03 N71-18698
- HERMESMEYER, C. E.  
Method and apparatus for quadriphase-shift-key and linear phase modulation  
[NASA-CASE-NPO-14444-1] c 33 N81-15192
- HEROLD, C. P.  
Quick attach and release fluid coupling assembly Patent  
[NASA-CASE-XKS-01985] c 15 N71-10782
- HERR, R. W.  
A support technique for vertically oriented launch vehicles  
[NASA-CASE-XLA-02704] c 11 N69-21540
- HERRMANN, A. L.  
Locking device with rolling detents Patent  
[NASA-CASE-XMF-01371] c 15 N70-41829
- HERRON, B. G.  
Power control circuit  
[NASA-CASE-XNP-02713] c 10 N69-39888
- HESLIN, T. M.  
Inorganic spark chamber frame and method of making the same  
[NASA-CASE-GSC-12354-1] c 35 N82-24471
- HESPEHNIDE, W. H.  
Variable direction force coupler  
[NASA-CASE-MFS-20317] c 15 N73-13463
- HESS, D. A.  
Passive propellant system  
[NASA-CASE-MFS-23642-2] c 20 N78-27176
- Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278
- HESS, R. V.  
A technique for breaking ice in the path of a ship  
[NASA-CASE-LAR-10815-1] c 16 N72-22520
- HESS, R. W.  
Contour surveying system Patent  
[NASA-CASE-XLA-08646] c 14 N71-17586
- HESTER, H. B.  
Current regulating voltage divider  
[NASA-CASE-MFS-20935] c 09 N71-34212
- HETHCOAT, J. P.  
Thruster maintenance system Patent  
[NASA-CASE-MFS-20325] c 28 N71-27095
- HEWES, D. E.  
Rotating space station simulator Patent  
[NASA-CASE-XLA-03127] c 11 N71-10776
- Reduced gravity simulator Patent  
[NASA-CASE-XLA-01787] c 11 N71-16028
- HEWITT, D. R.  
Thermal control system  
[NASA-CASE-GSC-12771-1] c 34 N84-14461
- HEYMAN, J. S.  
Ultrasonic calibration device  
[NASA-CASE-LAR-11435-1] c 35 N76-15432
- CW ultrasonic bolt tensioning monitor  
[NASA-CASE-LAR-12016-1] c 39 N78-15512
- Pseudo continuous wave instrument  
[NASA-CASE-LAR-12260-1] c 35 N79-10390
- CDS solid state phase insensitive ultrasonic transducer  
[NASA-CASE-LAR-12304-1] c 35 N80-20559
- Liquid-immersible electrostatic ultrasonic transducer  
[NASA-CASE-LAR-12465-1] c 33 N82-26572
- Acoustic tooth cleaner  
[NASA-CASE-LAR-12471-1] c 52 N82-29862

- Pulsed phase locked loop strain monitor  
[NASA-CASE-LAR-12772-1] c 33 N83-16626
- Error correction method and apparatus for electronic timepieces  
[NASA-CASE-LAR-12654-1] c 33 N83-36357
- Improved impact tolerant material  
[NASA-CASE-LAR-12887-1] c 24 N84-20649
- Method for thermal monitoring subcutaneous tissue  
[NASA-CASE-LAR-13028-1] c 52 N84-21053
- HEYSER, R. C.  
Temperature control system with a pulse width modulated bridge  
[NASA-CASE-NPO-11304] c 14 N73-26430
- Method for shaping and aiming narrow beams  
[NASA-CASE-NPO-14632-1] c 32 N82-18443
- HEYSON, H. H.  
Variable geometry wind tunnels  
[NASA-CASE-XLA-07430] c 11 N72-22246
- HIEDA, L. S.  
Controller for computer control of brushless dc motors  
[NASA-CASE-NPO-13970-1] c 33 N81-20352
- HIGA, W. H.  
Refrigeration apparatus  
[NASA-CASE-NPO-10309] c 15 N69-23190
- Refrigeration apparatus Patent  
[NASA-CASE-XNP-08877] c 15 N71-23025
- Stirling cycle engine and refrigeration systems  
[NASA-CASE-NPO-13613-1] c 37 N76-29590
- Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-1] c 37 N79-23431
- Centrifugal-reciprocating compressor  
[NASA-CASE-NPO-14597-2] c 37 N84-28081
- HIGBY, R. F.  
Electronic background suppression method and apparatus for a field scanning sensor  
[NASA-CASE-XGS-05211] c 07 N69-39980
- HIGH, R. W.  
Meteoroid capture cell construction  
[NASA-CASE-MS-C-12423-1] c 91 N76-30131
- HILBERT, E. E.  
Data multiplexer using tree switching configuration  
[NASA-CASE-NPO-11333] c 08 N72-22162
- Flexible computer accessed telemetry  
[NASA-CASE-NPO-11358] c 07 N72-25172
- Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel  
[NASA-CASE-NPO-13545-1] c 32 N77-12240
- HILBORN, E. H.  
Method and means for an improved electron beam scanning system Patent  
[NASA-CASE-ERC-10552] c 09 N71-12539
- Fluidic-thermochromic display device Patent  
[NASA-CASE-ERC-10031] c 12 N71-18603
- Plasma fluidic hybrid display Patent  
[NASA-CASE-ERC-10100] c 09 N71-33519
- HILDEBRANDT, A. F.  
Helium refining by superfluidity Patent  
[NASA-CASE-XNP-00733] c 06 N70-34946
- Continuous magnetic flux pump  
[NASA-CASE-XNP-01187] c 15 N73-28516
- Superconductive magnetic-field-trapping device  
[NASA-CASE-XNP-01185] c 26 N73-28710
- Magnetic-flux pump  
[NASA-CASE-XNP-01188] c 15 N73-32361
- HILDRER, E.  
Spectral slicing X-ray telescope with variable magnification  
[NASA-CASE-MFS-25942-1] c 89 N84-17084
- HILKER, W. R.  
Folding structure fabricated of rigid panels  
[NASA-CASE-XHQ-02146] c 18 N75-27040
- HILL, E. K.  
Ultrasonic scanner for radial and flat panels  
[NASA-CASE-MFS-20335-1] c 35 N74-10415
- HILL, O. E.  
Burst diaphragm flow initiator Patent  
[NASA-CASE-MFS-12915] c 11 N71-17600
- Wind tunnel test section  
[NASA-CASE-MFS-20509] c 11 N72-17183
- HILL, P. R.  
Heat protection apparatus Patent  
[NASA-CASE-XLA-00892] c 33 N71-17897
- Kinesthetic control simulator  
[NASA-CASE-LAR-10276-1] c 09 N75-15662
- HILL, W. E.  
Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290
- HILLBERG, E. T.  
Load relieving device Patent  
[NASA-CASE-XMS-06329-1] c 15 N71-20441
- HILLBORN, E. H.  
Color television systems using a single gun color cathode ray tube Patent  
[NASA-CASE-ERC-10098] c 09 N71-28618

## HILLIS, D. A.

- Drift compensation circuit for analog to digital converter Patent  
[NASA-CASE-XNP-04780] c 08 N71-19687
- HILLMAN, C. E., JR.  
Snap-in compressible biomedical electrode  
[NASA-CASE-MS-C-14623-1] c 52 N77-28717
- HILLMAN, J. J.  
Thermal compensator for closed-cycle helium refrigerator  
[NASA-CASE-GSC-12168-1] c 31 N79-17029
- HILTON, G. E.  
Position location and data collection system and method Patent  
[NASA-CASE-GSC-10083-1] c 30 N71-16090
- HIMMELRIGHT, R. M.  
High-temperature, high-pressure spherical segment valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817
- HINKLEY, E. D., JR.  
Portable laser remote system for methane gas detection  
[NASA-CASE-NPO-15790-1] c 36 N83-33137
- HIRAYAMA, C.  
Glass-to-metal seals comprising relatively high expansion metals  
[NASA-CASE-LEW-10698-1] c 37 N74-21063
- HIRSHFIELD, S. M.  
Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372
- Novel polymers and method of preparing same  
[NASA-CASE-NPO-10998-1] c 06 N73-32029
- HITTMAN, M. J.  
Automatic real-time pair-feeding system for animals  
[NASA-CASE-ARC-10302-1] c 51 N74-15778
- HOBART, H. F.  
Liquid flow sight assembly Patent  
[NASA-CASE-XLE-02998] c 14 N70-42074
- HOBBS, A. J.  
Method and apparatus for determining the contents of contained gas samples  
[NASA-CASE-GSC-10903-1] c 14 N73-12444
- HOBLIN, L. E.  
Unfurlable structure including coiled strips thrust launched upon tension release Patent  
[NASA-CASE-HQN-00937] c 07 N71-28979
- HOCHMAIR, E. S.  
Gyrator employing field effect transistors  
[NASA-CASE-MFS-21433] c 09 N73-20232
- Integrated P-channel MOS gyrator  
[NASA-CASE-MFS-22343-1] c 33 N74-34638
- Integrable power gyrator  
[NASA-CASE-MFS-22342-1] c 33 N75-30428
- HODDER, D. T.  
Apparatus for remote handling of materials  
[NASA-CASE-LAR-10634-1] c 37 N74-18123
- HODGE, P. E.  
Corrosion resistant thermal barrier coating  
[NASA-CASE-LEW-13088-1] c 26 N81-25188
- HODGES, D. H.  
Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029
- HOFFLER, Q. W.  
Apparatus and method for processing Korotkov sounds  
[NASA-CASE-MS-C-13999-1] c 52 N74-26626
- Logic-controlled occlusive cuff system  
[NASA-CASE-MS-C-14836-1] c 52 N82-11770
- HOFFMAN, C. A.  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-1] c 24 N81-17170
- Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-2] c 24 N81-26179
- HOFFMAN, D. G.  
Light detection instrument Patent  
[NASA-CASE-XGS-05534] c 23 N71-16355
- HOFFMAN, E. L.  
Flexible foam erectable space structures Patent  
[NASA-CASE-XLA-00686] c 31 N70-34135
- HOFFMAN, H. C.  
Gravity gradient attitude control system Patent  
[NASA-CASE-GSC-10555-1] c 21 N71-27324
- Active nutation controller  
[NASA-CASE-GSC-12273-1] c 35 N80-21719
- Method of damping nutation motion with minimum spin axis attitude disturbance  
[NASA-CASE-GSC-12551-1] c 18 N83-28064
- HOFFMAN, I. S.  
Impact energy absorber Patent  
[NASA-CASE-XLA-01530] c 14 N71-23092
- Self-supporting strain transducer  
[NASA-CASE-LAR-11263-1] c 35 N75-33369
- Miniature biaxial strain transducer  
[NASA-CASE-LAR-11648-1] c 35 N77-14407

- HOFFMAN, L. A.**  
Compensating bandwidth switching transients in an amplifier circuit Patent  
[NASA-CASE-XNP-01107] c 10 N71-28859
- HOFFMAN, T. E.**  
Tunable cavity resonator with ramp shaped supports  
[NASA-CASE-HON-10790-1] c 36 N74-11313
- HOHL, F.**  
Volumetric direct nuclear pumped laser  
[NASA-CASE-LAR-12183-1] c 36 N79-18307  
Large volume multiple-path nuclear pumped laser  
[NASA-CASE-LAR-12592-1] c 36 N82-13415  
Solar driven liquid metal MHD power generator  
[NASA-CASE-LAR-12495-1] c 44 N83-28573  
Solar pumped laser  
[NASA-CASE-LAR-12870-1] c 36 N84-16542
- HOKLO, K. H.**  
Welding blades to rotors  
[NASA-CASE-LEW-10533-1] c 15 N73-28515
- HOLDEMAN, L. B.**  
Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348
- HOLDEN, G. R.**  
Balanced bellows spirometer  
[NASA-CASE-XAR-01547] c 05 N69-21473
- HOLDERER, O. C.**  
Electric arc driven wind tunnel Patent  
[NASA-CASE-XMF-00411] c 11 N70-36913
- HOLDERMAN, L. B.**  
Germanium coated microbridge and method  
[NASA-CASE-MFS-23274-1] c 33 N78-13320
- HOLDREN, R. T., III**  
Radar calibration sphere  
[NASA-CASE-XLA-11154] c 07 N72-21117
- HOLES, J. K.**  
Digital second-order phase-locked loop  
[NASA-CASE-NPO-11905-1] c 33 N74-12887
- HOLESKI, D. E.**  
Apparatus for absorbing and measuring power Patent  
[NASA-CASE-XLE-00720] c 14 N70-40201
- HOLKO, K. H.**  
Enhanced diffusion welding  
[NASA-CASE-LEW-11388-1] c 15 N73-32358  
Apparatus for welding blades to rotors  
[NASA-CASE-LEW-10533-2] c 37 N74-11300  
Diffusion welding in air  
[NASA-CASE-LEW-11387-1] c 37 N74-18128  
Diffusion welding  
[NASA-CASE-LEW-11388-2] c 37 N74-21055
- HOLLAHAN, J. R.**  
Method of preparing water purification membranes  
[NASA-CASE-ARC-10643-1] c 25 N75-12087
- HOLLAND, L. R.**  
Apparatus and method for heating a material in a transparent ampoule  
[NASA-CASE-MFS-25436-1] c 27 N83-36220  
High-temperature, high-pressure optical cell  
[NASA-CASE-MFS-26000-1] c 74 N84-16986
- HOLLAND, V. B.**  
Signal conditioning circuit apparatus  
[NASA-CASE-ARC-10348-1] c 33 N75-19518
- HOLLANDER, J.**  
Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099  
Highly fluorinated polymers  
[NASA-CASE-MFS-11492] c 06 N73-30102
- HOLLANHAN, J. R., JR.**  
Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers  
[NASA-CASE-ARC-10915-2] c 27 N79-18052
- HOLLEMAN, E. C.**  
Three axis controller Patent  
[NASA-CASE-XFR-00181] c 21 N70-33279
- HOLLENBAUGH, R. C.**  
Position location system and method Patent  
[NASA-CASE-GSC-10087-2] c 21 N71-13958  
Position location and data collection system and method Patent  
[NASA-CASE-GSC-10083-1] c 30 N71-16090  
Traffic control system and method Patent  
[NASA-CASE-GSC-10087-1] c 02 N71-19287  
Position location system and method  
[NASA-CASE-GSC-10087-3] c 07 N72-12080  
Doppler compensation by shifting transmitted object frequency within limits  
[NASA-CASE-GSC-10087-4] c 07 N73-20174
- HOLLEY, L. D.**  
Automatic lightning detection and photographic system  
[NASA-CASE-KSC-10728-1] c 14 N73-32319  
Microcomputerized electric field meter diagnostic and calibration system  
[NASA-CASE-KSC-11035-1] c 35 N78-28411  
Digital automatic gain amplifier  
[NASA-CASE-KSC-11008-1] c 33 N79-22373
- HOLLIDAY, M. L.**  
Precision alignment apparatus for cutting a workpiece  
[NASA-CASE-LAR-11658-1] c 37 N77-14478
- HOLLIDAY, R. J.**  
Method of making macrocrystalline or single crystal semiconductive material and products produced thereby  
[NASA-CASE-NPO-15904-1] c 76 N83-21993
- HOLLIS, B. R., JR.**  
Multilevel metallization method for fabricating a metal oxide semiconductor device  
[NASA-CASE-MFS-23541-1] c 76 N79-14906  
Method of construction of a multi-cell solar array  
[NASA-CASE-MFS-23540-1] c 44 N79-26475  
Liquid immersion apparatus for minute articles  
[NASA-CASE-MFS-25363-1] c 37 N82-12441
- HOLLOW, R. H.**  
Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098
- HOLMAN, E. V.**  
Latching mechanism Patent  
[NASA-CASE-XMS-03745] c 15 N71-21076
- HOLMES, B. J.**  
Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092
- HOLMES, B. K.**  
Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708
- HOLMES, H. K.**  
Velocity limiting safety system Patent  
[NASA-CASE-XLA-07473] c 15 N71-24895
- HOLMES, J. F.**  
Oceanic wave measurement system  
[NASA-CASE-MFS-23862-1] c 48 N80-18667
- HOLMES, L., JR.**  
Ruler for making navigational computations  
[NASA-CASE-XNP-01458] c 04 N78-17031
- HOLMES, M.**  
Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018
- HOLMES, R. F.**  
Catalyst cartridge for carbon dioxide reduction unit  
[NASA-CASE-LAR-10551-1] c 25 N74-12813  
Heat exchanger  
[NASA-CASE-MFS-22991-1] c 34 N77-10463
- HOLMES, S. J.**  
Ultraviolet filter  
[NASA-CASE-XNP-02340] c 23 N69-24332
- HOLMES, T. H.**  
Vibration damping system Patent  
[NASA-CASE-XMS-01620] c 23 N71-15673
- HOLMES, W. T.**  
Lifting body Patent Application  
[NASA-CASE-FRC-10063] c 01 N71-12217
- HOLMSTROM, F. R.**  
Shielded cathode mode bulk effect devices  
[NASA-CASE-ERC-10119] c 26 N72-21701
- HOLWACH, J.**  
Sound-suppressing structure with thermal relief  
[NASA-CASE-LEW-12658-1] c 71 N79-14871
- HOLT, H. M.**  
Transient-compensated SCR inverter  
[NASA-CASE-XLA-08507] c 09 N69-39984  
SCR blocking pulse gate amplifier Patent  
[NASA-CASE-XLA-07497] c 09 N71-12514
- HOLT, J. W.**  
Attachment system for silica tiles  
[NASA-CASE-MSC-18741-1] c 27 N82-29456  
Method for repair of thin glass coatings  
[NASA-CASE-KSC-11097-1] c 27 N82-33520
- HOLT, N. I.**  
Scan converting video tape recorder  
[NASA-CASE-NPO-10168-1] c 07 N73-22076  
Scan converting video tape recorder  
[NASA-CASE-NPO-10166-2] c 35 N78-16391  
Electromagnetic transducer recording head having a laminated core section and tapered gap  
[NASA-CASE-NPO-10711-1] c 35 N77-21392
- HOLTZE, R. F.**  
Coating process  
[NASA-CASE-XNP-06508] c 18 N69-39895
- HOLWAY, H. P.**  
Model launcher for wind tunnels Patent  
[NASA-CASE-XNP-03578] c 11 N71-23030  
Mobile sampler for use in acquiring samples of terrestrial atmospheric gases  
[NASA-CASE-NPO-15220-1] c 45 N83-25217
- HOMKES, R. J.**  
Multiparameter vision testing apparatus  
[NASA-CASE-MSC-13801-2] c 54 N75-27759
- HONEY, R. W.**  
Optimum predetection diversity receiving system Patent  
[NASA-CASE-XGS-00740] c 07 N71-23098
- HONEYCUTT, L., III**  
Thermal shock and erosion resistant tantalum carbide ceramic material  
[NASA-CASE-LAR-11902-1] c 27 N78-17206
- HONG, J. P.**  
Real time analysis of voiced sounds  
[NASA-CASE-NPO-13465-1] c 32 N76-31372  
System and method for character recognition  
[NASA-CASE-NPO-11337-1] c 74 N81-18986
- HONG, S. D.**  
Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect  
[NASA-CASE-NPO-14657-1] c 74 N81-17887  
Broadband optical radiation detector  
[US-PATENT-4,262,198] c 74 N83-19597
- HONNELL, M. A.**  
Automatic frequency control for FM transmitter  
[NASA-CASE-MFS-21540-1] c 32 N74-19790  
Isolated output system for a class D switching-mode amplifier  
[NASA-CASE-MFS-21616-1] c 33 N75-30429  
Frequency modulated oscillator  
[NASA-CASE-MFS-23181-1] c 33 N77-17351
- HOOD, R. T.**  
Hall current measuring apparatus having a series resistor for temperature compensation Patent  
[NASA-CASE-XAC-01662] c 14 N71-23037
- HOOD, W. R.**  
Detection of the transitional layer between laminar and turbulent flow areas on a wing surface  
[NASA-CASE-LAR-12261-1] c 02 N80-20224
- HOOP, J. M.**  
Method and apparatus for nondestructive testing  
[NASA-CASE-MFS-21233-1] c 38 N74-15395  
Ultrasonic bone densitometer  
[NASA-CASE-MFS-20994-1] c 35 N75-12271
- HOOPER, C. D.**  
Extensometer Patent  
[NASA-CASE-XMF-04680] c 15 N71-19489
- HOOPER, S. L.**  
Self-charging metering and dispensing device for fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856
- HOOVER, R. B.**  
Collimator of multiple plates with axially aligned identical random arrays of apertures  
[NASA-CASE-MFS-20546-2] c 14 N73-30389  
Automatic lightning detection and photographic system  
[NASA-CASE-KSC-10728-1] c 14 N73-32319  
Three mirror glancing incidence system for X-ray telescope  
[NASA-CASE-MFS-21372-1] c 74 N74-27866  
Multiplate focusing collimator  
[NASA-CASE-MFS-20932-1] c 35 N75-19616  
Method for retarding dye fading during archival storage of developed color photographic film  
[NASA-CASE-MFS-23250-1] c 35 N82-11432  
Extended range X-ray telescope  
[NASA-CASE-MFS-25282-1] c 34 N83-19015  
Spectral slicing X-ray telescope with variable magnification  
[NASA-CASE-MFS-25942-1] c 89 N84-17084
- HOOVER, R. J.**  
Extrusion die for refractory metals Patent  
[NASA-CASE-XLE-06773] c 15 N71-23817
- HOPKINS, P. M.**  
Differential phase shift keyed communication system  
[NASA-CASE-MSC-14065-1] c 32 N74-26654  
Differential phase shift keyed signal resolver  
[NASA-CASE-MSC-14066-1] c 33 N74-27705  
Apparatus and method for stabilized phase detection for binary signal tracking loops  
[NASA-CASE-MSC-16461-1] c 33 N79-11313
- HOPKINS, V.**  
Inorganic solid film lubricants Patent  
[NASA-CASE-XMF-03988] c 15 N71-21403
- HOPPER, J. H.**  
Thermal garment  
[NASA-CASE-XMS-03694-1] c 54 N82-29002
- HOPPING, R. L.**  
Landing gear Patent  
[NASA-CASE-XMF-01174] c 02 N70-41589
- HORNE, W. B.**  
Aircraft wheel spray drag alleviator Patent  
[NASA-CASE-XLA-01583] c 02 N70-36825
- HORNER, J. L.**  
Optical noise suppression device and method  
[NASA-CASE-MSC-12640-1] c 74 N78-31988
- HORTON, D. B.**  
Instrument support with precise lateral adjustment Patent  
[NASA-CASE-XMF-00480] c 14 N70-39898



## HORTON, J. C.

Method of making impurity-type semiconductor electrical contacts Patent  
[NASA-CASE-XMF-01016] c 26 N71-17818

## HORTTOR, R. L.

Method and apparatus for mapping planets  
[NASA-CASE-NPO-11001] c 07 N72-21118

## HOSETHIEN, H. H.

Adaptive tracking notch filter system Patent  
[NASA-CASE-XMF-01892] c 10 N71-22986

## HOTZ, G. M.

Soil penetrometer  
[NASA-CASE-XNP-05530] c 14 N73-32321  
Burrowing apparatus  
[NASA-CASE-XNP-07169] c 15 N73-32362

## HOUCK, W. H.

Voltage dropout sensor Patent  
[NASA-CASE-KSC-10020] c 10 N71-27338  
Ripple indicator  
[NASA-CASE-KSC-10162] c 09 N72-11225  
Signal conditioner test set  
[NASA-CASE-KSC-10750-1] c 35 N75-12270

## HOUSEMAN, J.

Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-1] c 37 N76-16446  
Hydrogen-rich gas generator  
[NASA-CASE-NPO-13464-1] c 44 N76-18642  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-2] c 44 N76-29700  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13464-2] c 44 N76-29704  
Hydrogen-rich gas generator  
[NASA-CASE-NPO-13560-1] c 44 N77-10636  
Combustion engine  
[NASA-CASE-NPO-13671-1] c 37 N77-31497  
Start up system for hydrogen generator used with an internal combustion engine  
[NASA-CASE-NPO-13849-1] c 28 N80-10374  
Combustion engine system  
[NASA-CASE-NPO-14565-2] c 25 N83-19826

## HOWARD, E. A.

Soil penetrometer  
[NASA-CASE-XNP-05530] c 14 N73-32321  
Burrowing apparatus  
[NASA-CASE-XNP-07169] c 15 N73-32362

## HOWARD, F. S.

Zero gravity shadow shield aligner  
[NASA-CASE-KSC-10622-1] c 31 N72-21893  
Geysering inhibitor for vertical cryogenic transfer pipe  
[NASA-CASE-KSC-10615] c 15 N73-12486  
Floating baffle to improve efficiency of liquid transfer from tanks  
[NASA-CASE-KSC-10639] c 15 N73-26472  
Zero gravity liquid transfer screen  
[NASA-CASE-KSC-10626] c 14 N73-27378  
Liquid hydrogen polygeneration system and process  
[NASA-CASE-KSC-11304-1] c 28 N84-29017

## HOWARD, J. C.

Means for suppressing or attenuating bending motion of elastic bodies Patent  
[NASA-CASE-XAC-05632] c 32 N71-23971  
G-load measuring and indicator apparatus  
[NASA-CASE-ARC-10806] c 06 N74-27872  
G-load measuring and indicator apparatus  
[NASA-CASE-ARC-10806-1] c 35 N75-29381

## HOWARD, P. W.

Apparatus for reducing aerodynamic noise in a wind tunnel  
[NASA-CASE-MFS-23099-1] c 09 N76-23273

## HOWARD, W. D.

Method and device for detecting voids in low density material Patent  
[NASA-CASE-MFS-20044] c 14 N71-28993

## HOWARD, W. H.

Skeletal stressing method and apparatus Patent  
[NASA-CASE-ARC-10100-1] c 05 N71-24738  
Programmable physiological infusion  
[NASA-CASE-ARC-10447-1] c 52 N74-22771  
Tread drum for animals  
[NASA-CASE-ARC-10917-1] c 51 N78-27733

## HOWARTH, J. T.

Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405  
Flame retardant spandex type polyurethanes  
[NASA-CASE-MSC-14331-2] c 27 N78-17213  
Process for spinning flame retardant elastomeric compositions  
[NASA-CASE-MSC-14331-3] c 27 N78-32262

## HOWE, R. D.

Ozonation of cooling tower waters  
[NASA-CASE-NPO-14340-1] c 45 N80-14579

## HOWE, T. L.

Strain gauge ambiguity sensor for segmented mirror active optical system  
[NASA-CASE-MFS-20506-1] c 35 N75-12273

## HOWELL, J. R.

Device for directionally controlling electromagnetic radiation Patent  
[NASA-CASE-XLE-01716] c 09 N70-40234

## HOWELL, W. E.

Fringe counter for interferometers Patent  
[NASA-CASE-LAR-10204] c 14 N71-27215  
Star image motion compensator  
[NASA-CASE-LAR-10523-1] c 14 N72-22444  
Heads up display  
[NASA-CASE-LAR-12630-1] c 06 N84-27733  
Volumetric fuel quantity gauge  
[NASA-CASE-LAR-13147-1] c 35 N84-32787

## HOWELL, W. L.

Fluid thrust control system  
[NASA-CASE-XMF-05964-1] c 20 N79-21124

## HOWLAND, B. T.

High pressure air valve Patent  
[NASA-CASE-MSC-11010] c 15 N71-19485

## HOYT, H. E.

Process of treating cellulosic membrane and alkaline with membrane separator  
[NASA-CASE-GSC-10019-1] c 44 N82-24641  
Separator for alkaline batteries and method of making same  
[NASA-CASE-GSC-10350-1] c 44 N82-24642  
Separator for alkaline electric cells and method of making  
[NASA-CASE-GSC-10017-1] c 44 N82-24643  
Separator for alkaline electric batteries and method of making  
[NASA-CASE-GSC-10018-1] c 44 N82-24644  
Alkaline electrochemical cells and method of making  
[NASA-CASE-GSC-10349-1] c 44 N82-24645  
Aqueous alkali metal hydroxide insoluble cellulose ether membrane  
[NASA-CASE-XGS-05584-1] c 25 N82-29370

## HOYT, R. F.

In situ transfer standard for ultrahigh vacuum gage calibration  
[NASA-CASE-LAR-10862-1] c 35 N74-15092

## HRACH, F. J.

Capacitor and method of making same Patent  
[NASA-CASE-LEW-10364-1] c 09 N71-13522

## HRASTAR, J. A.

Apparatus for and method of compensating dynamic unbalance  
[NASA-CASE-GSC-12550-1] c 37 N84-28082

## HRON, R. L.

Load current sensor for a series pulse width modulated power supply  
[NASA-CASE-GSC-10656-1] c 09 N72-25249

## HRUBY, R. J.

Microwave flaw detector Patent  
[NASA-CASE-ARC-10009-1] c 15 N71-17822  
Transient video signal recording with expanded playback

## PATENT

[NASA-CASE-ARC-10003-1] c 09 N71-25866  
Method and apparatus for swept-frequency impedance measurements of welds  
[NASA-CASE-ARC-10176-1] c 15 N72-21464

Coaxial inverted geometry transistor having buried emitter  
[NASA-CASE-ARC-10330-1] c 09 N73-32112  
Twin-capacitive shaft angle encoder with analog output signal  
[NASA-CASE-ARC-10897-1] c 33 N77-31404

## HRYNIEWIECKI, E.

Vehicle for use in planetary exploration  
[NASA-CASE-NPO-11366] c 11 N73-26238

## HSU, G. C.

Aldehyde-containing urea-absorbing polysaccharides  
[NASA-CASE-NPO-13620-1] c 27 N77-30236

Coal desulfurization process  
[NASA-CASE-NPO-13937-1] c 44 N78-31527  
Surfactant-assisted liquefaction of particulate carbonaceous substances  
[NASA-CASE-NPO-13904-1] c 25 N79-11152

Coal desulfurization  
[NASA-CASE-NPO-14272-1] c 25 N81-33246  
Crude oil desulfurization  
[NASA-CASE-NPO-14542-1] c 25 N82-23282

## HSU, L. C.

Trimerization of aromatic nitriles  
[NASA-CASE-LEW-12053-1] c 27 N78-15276  
In situ self cross-linking of polyvinyl alcohol battery separators  
[NASA-CASE-LEW-12972-1] c 44 N79-25481

Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby  
[NASA-CASE-LEW-12053-2] c 27 N79-28307

Method of cross-linking polyvinyl alcohol and other water soluble resins  
[NASA-CASE-LEW-13103-1] c 27 N80-32516

In-situ cross linking of polyvinyl alcohol  
[NASA-CASE-LEW-13135-2] c 27 N81-24257  
Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-1] c 44 N81-27615

Cross-linked polyvinyl alcohol and method of making same  
[NASA-CASE-LEW-13101-2] c 23 N81-29160  
Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531

Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188  
Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-2] c 44 N83-29805

## HSU, M. T. S.

Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341

## HSU, Y.-Y.

Slug flow magnetohydrodynamic generator  
[NASA-CASE-XLE-02083] c 03 N69-39983

## HUANG, H. C.

Microwave field effect transistor  
[NASA-CASE-GSC-12442-1] c 33 N82-20398

## HUANG, M. Y.

Self-calibrating threshold detector  
[NASA-CASE-MSC-16370-1] c 35 N81-19427

## HUBBARD, W. P.

Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267

## HUBER, C. S.

Modification of the physical properties of freeze-dried rice  
[NASA-CASE-MSC-13540-1] c 05 N72-33096

## HUBER, R. F.

Compensating linkage for main rotor control  
[NASA-CASE-LAR-11797-1] c 05 N81-19087

## HUBER, W. C.

Hand-held self-maneuvering unit Patent  
[NASA-CASE-XMS-05304] c 05 N71-12336  
Inflatable tether Patent  
[NASA-CASE-XMS-10993] c 15 N71-28936

Foldable construction block  
[NASA-CASE-MSC-12233-1] c 15 N72-25454  
Foldable construction block  
[NASA-CASE-MSC-12233-2] c 32 N73-13921

Fluid valve assembly  
[NASA-CASE-MSC-12731-1] c 37 N78-25426

## HUDGINS, J. L.

Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423  
Apparatus for sequentially transporting containers  
[NASA-CASE-MFS-23846-1] c 37 N82-32731

## HUDIS, M.

Preparation of dielectric coating of variable dielectric constant by plasma polymerization  
[NASA-CASE-ARC-10892-2] c 27 N79-14214

## HUDDOCK, R. J.

Reference apparatus for medical ultrasonic transducer  
[NASA-CASE-ARC-10753-1] c 54 N75-27760

## HUDSON, O. K.

Gravimeter Patent  
[NASA-CASE-XMF-05844] c 14 N71-17587

## HUDSPETH, T.

Phase demodulation system with two phase locked loops Patent  
[NASA-CASE-XNP-00777] c 10 N71-19469

## HUELSMAN, L. P.

RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171

## HUEY, D. C.

Digital numerically controlled oscillator  
[NASA-CASE-MSC-16747-1] c 33 N81-17349

## HUFF, R. G.

Apparatus for sensing temperature  
[NASA-CASE-XLE-05230] c 14 N72-27410  
Method of making apparatus for sensing temperature  
[NASA-CASE-XLE-05230-2] c 14 N73-13417

Jet exhaust noise suppressor  
[NASA-CASE-LEW-11286-1] c 07 N74-27490

## HUFFAKER, R. M.

Laser Doppler system for measuring three dimensional vector velocity Patent  
[NASA-CASE-MFS-20386] c 21 N71-19212

Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028  
Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493

Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753

- HUGGINS, C. T.**  
Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612
- HUGHES, B. C.**  
Air bearing Patent  
[NASA-CASE-XMF-00339] c 15 N70-39896
- HUGHES, C. T.**  
Method for forming pyrrone molding powders and products of said method  
[NASA-CASE-LAR-10423-1] c 23 N82-29358
- HUGHES, D. B.**  
Fast scan control for deflection type mass spectrometers  
[NASA-CASE-LAR-11428-1] c 35 N74-34857
- HUGHES, F. M.**  
Meteoroid detector  
[NASA-CASE-LAR-10483-1] c 14 N73-32327
- HULL, R. A.**  
Moving body velocity arresting line  
[NASA-CASE-LAR-12372-1] c 37 N82-18601
- HULT, T. D.**  
Articulated joint for deployable structures  
[NASA-CASE-NPO-16038-1] c 37 N83-20157
- HUMBERT, J. E.**  
Automatic real-time pair-feeding system for animals  
[NASA-CASE-ARC-10302-1] c 51 N74-15778
- HUMENIK, F. M.**  
Gas turbine combustor Patent  
[NASA-CASE-LEW-10286-1] c 28 N71-28915
- HUMES, D. H.**  
Impact measuring technique  
[NASA-CASE-LAR-10913] c 14 N72-16282
- HUMMER, R. F.**  
Scanner  
[NASA-CASE-GSC-12032-2] c 43 N82-13465
- HUMPHREY, M. F.**  
Process for purification of waste water produced by a Kraft process pulp and paper mill  
[NASA-CASE-NPO-13847-2] c 85 N79-17747
- HUNTER, W. J.**  
Ozonation of cooling tower waters  
[NASA-CASE-NPO-14340-1] c 45 N80-14579
- HUNTER, W. J.**  
Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950
- HUMPHRY, D. E.**  
Modulated voltage metastable ionization detector  
[NASA-CASE-ARC-11503-1] c 51 N84-23093
- HUNEIDI, F.**  
Device for determining frost depth and density  
[NASA-CASE-NFS-25754-1] c 35 N84-28018
- HUNGERFORD, W. J.**  
Conforming polisher for aspheric surface of revolution Patent  
[NASA-CASE-XGS-02884] c 15 N71-22705
- HUNKELER, R. E.**  
Foamed in place ceramic refractory insulating material Patent  
[NASA-CASE-XGS-02435] c 18 N71-22998
- HUNT, G. H.**  
System for the measurement of ultra-low stray light levels  
[NASA-CASE-MFS-23513-1] c 74 N79-11865
- HUNT, J. G.**  
Extrusion can  
[NASA-CASE-NPO-10812] c 15 N73-13464
- HUNT, J. L.**  
Hypersonic airbreathing missile  
[NASA-CASE-LAR-12264-1] c 15 N78-32168
- HUNT, S. R., JR.**  
Multiparameter vision testing apparatus  
[NASA-CASE-MSC-13601-2] c 54 N75-27759
- HUNTER, R. E.**  
Method and apparatus for neutralizing potentials induced on spacecraft surfaces  
[NASA-CASE-GSC-11963-1] c 33 N77-10429
- HUNTRESS, W. T.**  
Ion and electron detector for use in an ICR spectrometer  
[NASA-CASE-NPO-13479-1] c 35 N77-10492
- HUNTRESS, W. T., JR.**  
Miniature cyclotron resonance ion source using small permanent magnet  
[NASA-CASE-NPO-14324-1] c 72 N80-27163
- HURD, W. A.**  
System for the measurement of ultra-low stray light levels  
[NASA-CASE-MFS-23513-1] c 74 N79-11865
- HURD, W. J.**  
Digital filter for reducing sampling jitter in digital control systems Patent  
[NASA-CASE-NPO-11088] c 08 N71-29034
- HURD, W. J.**  
Transition tracking bit synchronization system  
[NASA-CASE-NPO-10844] c 07 N72-20140
- HURD, W. J.**  
Digital quasi-exponential function generator  
[NASA-CASE-NPO-11130] c 08 N72-20176
- HURST, W. N.**  
Code regenerative clean-up loop transponder for a mu-type ranging system  
[NASA-CASE-NPO-11707] c 07 N73-25161
- HURST, W. N.**  
High dynamic global positioning system receiver  
[NASA-CASE-NPO-16171-1-CU] c 04 N84-12151
- HURWITZ, F. I.**  
Logic-controlled occlusive cuff system  
[NASA-CASE-MSC-14836-1] c 52 N82-11770
- HUSAIN-ABIDI, A. S.**  
Method and apparatus for gripping uniaxial fibrous composite materials  
[NASA-CASE-LEW-13758-1] c 24 N84-27829
- HUSCHKE, E. G., JR.**  
Optical data processing using paraboloidal mirror segments  
[NASA-CASE-GSC-11296-1] c 23 N73-30666
- HUSCHKE, E. G., JR.**  
Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443
- HUSCHKE, E. G., JR.**  
Brazing alloy composition  
[NASA-CASE-XMF-06053] c 26 N75-27126
- HUSCHKE, E. G., JR.**  
Brazing alloy  
[NASA-CASE-XNP-03878] c 26 N75-27127
- HUSMANN, O. K.**  
Multilayer porous ionizer Patent  
[NASA-CASE-XNP-04338] c 17 N71-23046
- HUSSEY, M. W.**  
Filter regeneration systems  
[NASA-CASE-MSC-14273-1] c 34 N75-33342
- HUTCHINSON, W. D.**  
Manually actuated heat pump  
[NASA-CASE-NPO-10677] c 05 N72-11084
- HUTCHISON, J. J.**  
Trifunctional alcohol  
[NASA-CASE-NPO-10714] c 06 N69-31244
- HUTCHISON, J. J.**  
Novel polycarboxylic prepolymeric materials and polymers thereof Patent  
[NASA-CASE-NPO-10596] c 06 N71-25929
- HUTTO, R. J.**  
Radiation sensitive solid state switch  
[NASA-CASE-NPO-10817-1] c 08 N73-30135
- HYMER, R. L.**  
Audio signal processor Patent  
[NASA-CASE-MSC-12223-1] c 07 N71-26181
- I-LECHAO, J.**  
Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-1] c 54 N76-22914
- IANNINI, A. A.**  
Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334
- IANNINI, A. A.**  
Semiconductor transducer device  
[NASA-CASE-ERC-10087-2] c 14 N72-31446
- IANNONE, M.**  
Preparation of heterocyclic block copolymer omega-diamidoximes  
[NASA-CASE-ARC-11060-1] c 27 N79-22300
- ICELAND, W. F.**  
Grain refinement control in TIG arc welding  
[NASA-CASE-MSC-19095-1] c 37 N75-19683
- IDEN, R. B.**  
Method for determining presence of OH in magnesium oxide  
[NASA-CASE-NPO-10774] c 06 N72-17095
- IGENBERGS, E. B.**  
Self-energized plasma compressor  
[NASA-CASE-MFS-22145-1] c 75 N75-13625
- IGENBERGS, E. B.**  
Two stage light gas-plasma projectile accelerator  
[NASA-CASE-MFS-22287-1] c 75 N76-14931
- IGENBERGS, E. B.**  
Self-energized plasma compressor  
[NASA-CASE-MFS-22145-2] c 75 N76-17951
- IGOE, W. B.**  
Dynamic vibration absorber Patent  
[NASA-CASE-LAR-10083-1] c 15 N71-27006
- ILES, P. A.**  
Method for producing a solar cell having an integral protective covering  
[NASA-CASE-XGS-04531] c 03 N69-24267
- ILES, P. A.**  
Method of coating solar cell with borosilicate glass and resultant product  
[NASA-CASE-GSC-11514-1] c 03 N72-24037
- ILLG, W.**  
Hydraulic grip Patent  
[NASA-CASE-XLA-05100] c 15 N71-17696
- ILLG, W.**  
Light shield and infrared reflector for fatigue testing Patent  
[NASA-CASE-XLA-01782] c 14 N71-26136
- IMBOLDI, E.**  
Tracking receiver Patent  
[NASA-CASE-XGS-08679] c 10 N71-21473
- IMIG, L. A.**  
Anti-buckling fatigue test assembly  
[NASA-CASE-LAR-10426-1] c 09 N74-19528
- IMLAY, E. H.**  
Fatigue failure load indicator  
[NASA-CASE-LAR-12027-1] c 39 N79-22537
- IMLAY, E. H.**  
Heating and cooling system  
[NASA-CASE-LAR-12393-1] c 34 N83-34221
- INGHAM, J. D.**  
Binary to binary-coded-decimal converter Patent  
[NASA-CASE-XNP-00432] c 08 N70-35423
- INGE, S. V., JR.**  
Vertical shaft windmill  
[NASA-CASE-LAR-12923-1] c 37 N84-12493
- INGHAM, J. D.**  
Dual membrane hollow fiber fuel cell and method of operating same  
[NASA-CASE-NPO-13732-1] c 44 N79-10513
- INGHAM, J. D.**  
Curable liquid hydrocarbon prepolymers containing hydroxyl groups and process for producing same  
[NASA-CASE-NPO-13137-1] c 27 N80-32514
- INGHAM, J. D.**  
Prepolymer dianhydrides  
[NASA-CASE-NPO-13899-1] c 27 N80-32515
- INGHAM, J. D.**  
Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634
- INGHAM, J. D.**  
Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900
- INGHAM, K. T.**  
Locking device for turbine rotor blades Patent  
[NASA-CASE-XNP-00816] c 28 N71-28928
- INGLE, W. M.**  
Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229
- INGLE, W. M.**  
Quartz ball valve  
[NASA-CASE-NPO-14473-1] c 37 N80-23654
- IRICK, S. C.**  
Ejectable underwater sound source recovery assembly  
[NASA-CASE-LAR-10595-1] c 35 N74-16135
- IRICK, S. C.**  
Hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands  
[NASA-CASE-LAR-12412-1] c 08 N82-24205
- IRICK, S. C.**  
Continuous self-locking spiral wound seal  
[NASA-CASE-LAR-12315-1] c 37 N82-24490
- IRONS, A. S.**  
Heat sterilizable patient ventilator  
[NASA-CASE-NPO-13313-1] c 54 N75-27761
- IRWIN, A. S.**  
Drilled ball bearing with a one piece anti-tipping cage assembly  
[NASA-CASE-LEW-11925-1] c 37 N75-31446
- IRWIN, K. S.**  
Controlled visibility device for an aircraft Patent  
[NASA-CASE-XFR-04147] c 11 N71-10748
- IRWIN, T. P.**  
Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-19170
- ISLEY, W. C.**  
Heated porous plug microthruster  
[NASA-CASE-GSC-10640-1] c 28 N72-18766
- ITO, T. I.**  
Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353
- IVES, R. E.**  
Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421
- IVIE, C. V.**  
Multi-channel rotating optical interface for data transmission  
[NASA-CASE-NPO-14066-1] c 74 N79-34011
- IWASAKI, N.**  
Control device Patent  
[NASA-CASE-XAC-10019] c 15 N71-23809
- IWASAKI, R. S.**  
Electromagnetic power absorber  
[NASA-CASE-NPO-13830-1] c 32 N80-14281
- JACK, J. R.**  
Electro-thermal rocket Patent  
[NASA-CASE-XLE-00267] c 28 N70-33356
- JACK, J. R.**  
Electrothermal rockets having improved heat exchangers Patent  
[NASA-CASE-XLE-01783] c 28 N70-34175
- JACKSON, C. M., JR.**  
Wind tunnel model and method  
[NASA-CASE-LAR-10812-1] c 09 N74-17955
- JACKSON, C. M., JR.**  
Metric half-span model support system  
[NASA-CASE-LAR-12441-1] c 09 N82-23254
- JACKSON, J. W., JR.**  
Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765
- JACKSON, K. R.**  
Optical alignment system Patent  
[NASA-CASE-XNP-02029] c 14 N70-41955

## JACKSON, L. R.

- Techniques for insulating cryogenic fuel containers Patent  
[NASA-CASE-XLA-01967] c 31 N70-42015
- Oribiter/launch system  
[NASA-CASE-LAR-12250-1] c 14 N81-26161
- Multilayer thermal protection system  
[NASA-CASE-LAR-12620-1] c 24 N82-32417
- Pumped vortex  
[NASA-CASE-LAR-12625-1] c 02 N83-19715
- Daze fasteners  
[NASA-CASE-LAR-13009-1] c 37 N83-29708
- Aerospace vehicle  
[NASA-CASE-LAR-13155-1] c 18 N84-20628
- Curved cap corrugated sheet  
[NASA-CASE-LAR-12884-1] c 18 N84-33450

## JACKSON, M. R.

- Directionally solidified eutectic gamma plus beta nickel-base superalloys  
[NASA-CASE-LEW-12908-1] c 26 N77-32279
- Directionally solidified eutectic gamma-gamma nickel-base superalloys  
[NASA-CASE-LEW-12905-1] c 26 N78-18183

## JACOB, D. S.

- Pressure modulating valve  
[NASA-CASE-MSC-14905-1] c 37 N77-28487

## JACOBI, N.

- Acoustic levitation methods and apparatus  
[NASA-CASE-NPO-15562-1] c 71 N82-27088
- Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112
- Acoustic system for material transport  
[NASA-CASE-NPO-15453-1] c 71 N83-32515

## JACOBS, I. M.

- Data compression system  
[NASA-CASE-XNP-09785] c 08 N69-21928

## JACOBS, J. M.

- Biocontamination and particulate detection system  
[NASA-CASE-NPO-13953-1] c 35 N79-28527

## JACOBS, R. B.

- Densitometer Patent  
[NASA-CASE-XLE-00688] c 14 N70-41330

## JACOBS, V. L.

- Passive propellant system  
[NASA-CASE-MFS-23642-2] c 20 N78-27176
- Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278

## JACOBSON, D. S.

- Hermetically sealed semiconductor  
[NASA-CASE-GSC-10791-1] c 15 N73-14469

## JAGOW, R. B.

- Process of forming catalytic surfaces for wet oxidation reactions  
[NASA-CASE-MSC-14831-1] c 25 N78-10225

## JAIN, A.

- Surface roughness measuring system  
[NASA-CASE-NPO-13862-1] c 35 N79-10391
- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-1] c 32 N79-19195
- Method and apparatus for Delta K synthetic aperture radar measurement of ocean current  
[NASA-CASE-NPO-15704-1] c 32 N82-28502
- Clutter free synthetic aperture radar correlator  
[NASA-CASE-NPO-14035-1] c 32 N83-19968
- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths  
[NASA-CASE-NPO-14525-2] c 32 N83-31918

## JAKSTYS, V. J.

- Composite antenna feed  
[NASA-CASE-GSC-11046-1] c 07 N73-28013

## JALAN, V.

- Chromium electrodes for REDOX cells  
[NASA-CASE-LEW-13653-1] c 44 N84-28205

## JALINK, A. JR.

- Method for improving the signal-to-noise ratio of the Wheatstone bridge type bolometer Patent  
[NASA-CASE-XLA-02810] c 14 N71-25901
- Infrared horizon locator  
[NASA-CASE-LAR-10726-1] c 14 N73-20475

## JALUFKA, N. W.

- Volumetric direct nuclear pumped laser  
[NASA-CASE-LAR-12183-1] c 38 N79-18307

## JAMES, L. W.

- III-V photocathode with nitrogen doping for increased quantum efficiency  
[NASA-CASE-NPO-12134-1] c 33 N76-31409

## JAMES, N. J.

- Resilient wheel Patent  
[NASA-CASE-MFS-13929] c 15 N71-27091

## JAMES, R.

- System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075

## JAMIESON, R. S.

- Rotary stepping device with memory metal actuator  
[NASA-CASE-NPO-15482-1] c 37 N83-36484

## JAMISON, H. H.

- Ion-exchange membrane with platinum electrode assembly Patent  
[NASA-CASE-XMS-02063] c 03 N71-29044

## JANEFF, W.

- Tracking receiver Patent  
[NASA-CASE-GSC-08679] c 10 N71-21473

## JANESICK, J. R.

- Laser pulse detection method and apparatus  
[NASA-CASE-NPO-16030-1] c 36 N84-25037

## JANKOWSKI, F.

- Quick disconnect filter coupling  
[NASA-CASE-MFS-22323-1] c 37 N78-14463

## JANNICHE, P. J., JR.

- Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent  
[NASA-CASE-XGS-03632] c 09 N71-23311

## JANSEN, H. B.

- Fluid thrust control system  
[NASA-CASE-XMF-05964-1] c 20 N79-21124

## JARVIS, M. R.

- A spillage detector for liquid chromatography systems  
[NASA-CASE-MSC-20206-1] c 25 N83-29325

## JAVAN, A.

- Method and apparatus for stabilizing a gaseous optical maser Patent  
[NASA-CASE-XGS-03644] c 16 N71-18614

## JEANE, H. L.

- Priority interrupt system  
[NASA-CASE-NPO-13067-1] c 60 N76-18800

## JECH, R. W.

- Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288

- Method of making fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198

- Reinforced metallic composites Patent  
[NASA-CASE-XLE-00228] c 17 N70-38490

- Method for producing fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-03925] c 18 N71-22894

## JEDLIKA, J. R.

- Solid medium thermal engine  
[NASA-CASE-ARC-10481-1] c 44 N74-33379

## JEFFERS, E. L.

- Method and apparatus for eliminating luminol interference material  
[NASA-CASE-MSC-16260-1] c 51 N80-16714

- Method and automated apparatus for detecting coliform organisms  
[NASA-CASE-MSC-16777-1] c 51 N80-27067

- Rapid, quantitative determination of bacteria in water  
[NASA-CASE-GSC-12158-1] c 51 N83-27569

- Method for detecting coliform organisms  
[NASA-CASE-ARC-11322-1] c 51 N83-28849

## JEFFERY, P. A. E.

- Compensating linkage for main rotor control  
[NASA-CASE-LAR-11797-1] c 05 N81-19087

## JEFFREYS, H. B.

- Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493

## JELALIAN, A. V.

- Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028

- Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493

## JELLISON, J. C.

- Resilience testing device Patent  
[NASA-CASE-XLA-08254] c 14 N71-26161

## JENKINS, K. H.

- Diode and protection fuse unit Patent  
[NASA-CASE-XKS-03381] c 09 N71-22796

## JENKINS, L. M.

- Indexed keyed connection Patent  
[NASA-CASE-XMS-02532] c 15 N70-41808

## JENKINS, R. K.

- Thermally conductive polymers  
[NASA-CASE-GSC-11304-1] c 06 N72-21105

## JENNINGS, D. E.

- Thermal compensator for closed-cycle helium refrigerator  
[NASA-CASE-GSC-12168-1] c 31 N79-17029

- Shock isolator for operating a diode laser on a closed-cycle refrigerator  
[NASA-CASE-GSC-12297-1] c 37 N79-28549

## JENSEN, A. R.

- Separation nut Patent  
[NASA-CASE-XGS-01971] c 15 N71-15922

## JENSEN, B. J.

- Sulfone-ester polymers containing pendent ethynyl groups  
[NASA-CASE-LAR-13316-1] c 27 N84-28987

## JENSEN, C. A.

- Continuous plasma light source  
[NASA-CASE-XNP-04167-2] c 25 N72-24753

- Continuous plasma laser  
[NASA-CASE-XNP-04167-3] c 36 N77-19416

## JENSEN, K. J.

- Failure sensing and protection circuit for converter networks Patent  
[NASA-CASE-GSC-10114-1] c 10 N71-27366

## JENSEN, P. A.

- Low noise single aperture multimode monopulse antenna feed system Patent  
[NASA-CASE-XNP-01735] c 07 N71-22750

## JENSEN, R. N.

- Solar heating system  
[NASA-CASE-LAR-12009-1] c 44 N78-15560

- Combined solar collector and energy storage system  
[NASA-CASE-LAR-12205-1] c 44 N80-20810

## JEPPESEN, G. L.

- Solar engine  
[NASA-CASE-LAR-12148-1] c 44 N82-24640

- Deployable flexible tunnel  
[NASA-CASE-MFS-22636-1] c 37 N76-22540

## JESSUP, A. D.

- Variable angle tube holder  
[NASA-CASE-LAR-10507-1] c 11 N72-25284

- Lyophilized spore dispenser  
[NASA-CASE-LAR-10544-1] c 37 N74-13178

## JETER, J. D.

- Flammability test chamber Patent  
[NASA-CASE-KSC-10126] c 11 N71-24985

## JEWELL, P. A.

- Data handling system based on source significance, storage availability and data received from the source Patent Application  
[NASA-CASE-XNP-04162-1] c 08 N70-34675

## JEWELL, R. A.

- Production of high purity silicon carbide Patent  
[NASA-CASE-XLA-00158] c 26 N70-36805

- Apparatus for producing high purity silicon carbide crystals Patent  
[NASA-CASE-XLA-02057] c 26 N70-40015

- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00284] c 15 N71-16075

- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00302] c 15 N71-16077

## JEX, D. W.

- Liquid aerosol dispenser  
[NASA-CASE-MFS-20829] c 12 N72-21310

- Two stage light gas-plasma projectile accelerator  
[NASA-CASE-MFS-22287-1] c 75 N76-14931

## JHABVALA, M. D.

- Method of making V-MOS field effect transistors utilizing a two-step anisotropic etching and ion implantation  
[NASA-CASE-GSC-12515-1] c 33 N81-26360

- Implantable electrical device  
[NASA-CASE-GSC-12560-1] c 52 N82-29863

- Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360

## JHABVALA, M. O.

- Complementary DMOS-VMOS integrated circuit structure  
[NASA-CASE-GSC-12190-1] c 33 N79-12321

## JOBSON, D. J.

- Spectrometer integrated with a facsimile camera  
[NASA-CASE-LAR-11207-1] c 35 N75-19613

## JOHANNSEN, K. G.

- Systems and methods for determining radio frequency interference  
[NASA-CASE-GSC-12150-1] c 32 N79-11265

## JOHANSEN, D. L.

- Articulated multiple couch assembly Patent  
[NASA-CASE-MSC-11253] c 05 N71-12343

## JOHNS, C. E.

- Collapsible Apollo couch  
[NASA-CASE-MSC-13140] c 05 N72-11085

## JOHNS, C. E.

- Continuously variable voltage controlled phase shifter  
[NASA-CASE-NPO-11129] c 09 N72-33204

## JOHNSON, A. L., JR.

- Microelectronic module package Patent  
[NASA-CASE-XMS-02182] c 10 N71-28783

## JOHNSON, C. B.

- Hypersonic test facility Patent  
[NASA-CASE-XLA-00378] c 11 N71-15925

- Hypersonic test facility Patent  
[NASA-CASE-XLA-05378] c 11 N71-21475

## JOHNSON, C. C.

- Image tube  
[NASA-CASE-GSC-11602-1] c 33 N74-21850

- Visual target for retrofire attitude control  
[NASA-CASE-XMS-12158-1] c 31 N69-27499

- Orbital escape device Patent  
[NASA-CASE-XMS-06162] c 31 N71-28851

- Stand-off type ablative heat shield  
[NASA-CASE-MSC-12143-1] c 33 N72-17947
- Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860
- Reverse osmosis membrane of high urea rejection properties  
[NASA-CASE-ARC-10980-1] c 27 N80-23452
- JOHNSON, C. C., JR.**  
Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938
- Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664
- JOHNSON, C. E.**  
Impact testing machine Patent  
[NASA-CASE-XNP-04817] c 14 N71-23225
- JOHNSON, C. L.**  
Molding process for imidazopyrrolone polymers  
[NASA-CASE-LAR-10547-1] c 31 N74-13177
- JOHNSON, C. W.**  
Method of resolving clock synchronization error and means therefor Patent  
[NASA-CASE-XNP-08875] c 10 N71-23099
- JOHNSON, D. L.**  
Reciprocating magnetic refrigerator employing tandem porous matrices within a reciprocating displacer  
[NASA-CASE-NPO-16257-1] c 31 N84-24830
- JOHNSON, E. G.**  
System and method for tracking a signal source  
[NASA-CASE-HON-10890-1] c 17 N78-17140
- JOHNSON, E. T.**  
Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694
- JOHNSON, F. W.**  
Heat conductive resiliently compressible structure for space electronics package modules Patent  
[NASA-CASE-MSC-12389] c 33 N71-29052
- JOHNSON, H. G.**  
Electronic checkout system for space vehicles Patent  
[NASA-CASE-KSC-08012-2] c 31 N71-15566
- JOHNSON, H. I.**  
Training vehicle for controlling attitude Patent  
[NASA-CASE-XMS-02977] c 11 N71-10746
- Gravity stabilized flying vehicle Patent  
[NASA-CASE-MSC-12111-1] c 02 N71-11039
- Hand-held self-maneuvering unit Patent  
[NASA-CASE-XMS-05304] c 05 N71-12336
- Fluid power transmission Patent  
[NASA-CASE-XMS-01445] c 12 N71-16031
- Subgravity simulator Patent  
[NASA-CASE-XMS-04798] c 11 N71-21474
- Pneumatic amplifier Patent  
[NASA-CASE-MSC-12121-1] c 15 N71-27147
- JOHNSON, J. C., JR.**  
Mechanical actuator Patent  
[NASA-CASE-XGS-04548] c 15 N71-24045
- JOHNSON, J. D.**  
Wrist joint assembly  
[NASA-CASE-MFS-23311-1] c 54 N78-17676
- JOHNSON, J. E.**  
Variable cycle gas turbine engines  
[NASA-CASE-LEW-12916-1] c 37 N78-17384
- JOHNSON, J. E., JR.**  
Micro-fluid exchange coupling apparatus  
[NASA-CASE-ARC-11114-1] c 51 N81-14605
- JOHNSON, J. L.**  
Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15767
- Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568
- JOHNSON, J. L., JR.**  
High lift aircraft  
[NASA-CASE-LAR-11252-1] c 05 N75-25914
- JOHNSON, K. G.**  
Positioning mechanism  
[NASA-CASE-NPO-10679] c 15 N72-21462
- JOHNSON, R. C.**  
Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent  
[NASA-CASE-XLE-00266] c 14 N70-34156
- JOHNSON, R. D.**  
Gas path seal  
[NASA-CASE-NPO-12131-3] c 37 N80-18400
- JOHNSON, R. E.**  
Acquisition and tracking system for optical radar  
[NASA-CASE-MFS-20125] c 16 N72-13437
- JOHNSON, R. L.**  
Gas lubricant compositions Patent  
[NASA-CASE-XLE-00353] c 18 N70-39897
- Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-01765] c 18 N71-10772
- Alloys for bearings Patent  
[NASA-CASE-XLE-05033] c 15 N71-23810
- Metallic film diffusion for boundary lubrication Patent  
[NASA-CASE-XLE-10337] c 15 N71-24046
- JOHNSON, R. W.**  
Microwave switching power divider  
[NASA-CASE-GSC-12420-1] c 33 N82-16340
- JOHNSON, V. E., JR.**  
Hydrofoil Patent  
[NASA-CASE-XLA-00229] c 12 N70-33305
- JOHNSTON, A. R.**  
Polarimeter for transient measurement Patent  
[NASA-CASE-XNP-08883] c 23 N71-16101
- Light direction sensor  
[NASA-CASE-NPO-11201] c 14 N72-27409
- Cooperative multi-axis sensor for teleoperation of article manipulating apparatus  
[NASA-CASE-NPO-13386-1] c 54 N75-27758
- Stark-effect modulation of CO<sub>2</sub> laser with NH<sub>2</sub>D  
[NASA-CASE-NPO-11945-1] c 36 N76-18427
- Focal plane array optical proximity sensor  
[NASA-CASE-NPO-15155-1] c 74 N81-22894
- JOHNSTON, D. F.**  
Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591
- JOHNSTON, E. A.**  
Variable area exhaust nozzle  
[NASA-CASE-LEW-12378-1] c 07 N79-14097
- Thrust reverser for a long duct fan engine  
[NASA-CASE-LEW-13199-1] c 07 N82-26293
- JOHNSTON, G. D.**  
Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903
- JOHNSTON, J. D.**  
Combined docking and grasping device  
[NASA-CASE-MFS-23088-1] c 37 N77-23483
- Apparatus for assembling space structure  
[NASA-CASE-MFS-23579-1] c 18 N79-11108
- Pneumatic inflatable end effector  
[NASA-CASE-MFS-23696-1] c 54 N81-26718
- JOHNSTON, J. E.**  
Electrostatic measurement system  
[NASA-CASE-MFS-22129-1] c 33 N75-18477
- JOHNSTON, M. F.**  
Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996
- JOHNSTON, M. H.**  
Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown  
[NASA-CASE-MFS-23816-1] c 26 N80-23419
- JOHNSTON, R. L.**  
Multiple environment materials test chamber having a multiple port X-ray tube for irradiating a plurality of samples Patent  
[NASA-CASE-XMS-02930] c 11 N71-23042
- JOHNSTON, R. P.**  
Active clearance control system for a turbomachine  
[NASA-CASE-LEW-12938-1] c 07 N82-32366
- JOHNSTON, R. S.**  
Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152
- Fabric for micrometeoroid protection garment Patent  
[NASA-CASE-MSC-12109] c 18 N71-26285
- JOHNSTON, W. V.**  
Heat flow calorimeter  
[NASA-CASE-GSC-11434-1] c 34 N74-27859
- JOLLEY, J.**  
Lightweight reflector assembly  
[NASA-CASE-NPO-13707-1] c 74 N77-28933
- JONES, E. W.**  
Coal-rock interface detector  
[NASA-CASE-MFS-23725-1] c 43 N79-31706
- JONES, J. C.**  
Shock absorber Patent  
[NASA-CASE-XMS-03722] c 15 N71-21530
- JONES, J. F.**  
Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125
- JONES, J. H.**  
Lightning tracking system  
[NASA-CASE-KSC-10729-1] c 09 N73-32110
- Lightning current measuring systems  
[NASA-CASE-KSC-10807-1] c 33 N75-26246
- Method and apparatus for suppressing ignition overpressure in solid rocket propulsion systems  
[NASA-CASE-MFS-25843-1] c 20 N83-17588
- JONES, J. L.**  
Multiple circuit switch apparatus with improved pivot actuator structure Patent  
[NASA-CASE-XAC-03777] c 10 N71-15909
- Stereoscopic television system and apparatus  
[NASA-CASE-ARC-10160-1] c 23 N72-27728
- JONES, R. A.**  
Flow field simulation Patent  
[NASA-CASE-LAR-11138] c 12 N71-20436
- Method for determining thermo-physical properties of specimens  
[NASA-CASE-LAR-11053-1] c 25 N74-18551
- Apparatus for determining thermophysical properties of test specimens  
[NASA-CASE-LAR-11883-1] c 09 N77-27131
- JONES, R. E.**  
Swirl can primary combustor  
[NASA-CASE-LEW-11326-1] c 23 N73-30665
- JONES, R. H.**  
Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730
- JONES, R. J.**  
Capillary flow weld-bonding  
[NASA-CASE-LAR-11726-1] c 37 N76-27568
- JONES, R. L.**  
Helmet assembly and latch means therefor Patent  
[NASA-CASE-XMS-04935] c 05 N71-11190
- JONES, R. T.**  
Dual-fuselage aircraft having yawable wing and horizontal stabilizer  
[NASA-CASE-ARC-10470-1] c 02 N73-26005
- Oblique-wing supersonic aircraft  
[NASA-CASE-ARC-10470-3] c 05 N76-29217
- JONES, W. C.**  
Rotational joint assembly for the prosthetic leg  
[NASA-CASE-KSC-11004-1] c 54 N77-30749
- JONES, W. P.**  
Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550
- Superconducting magnet Patent  
[NASA-CASE-XNP-06503] c 23 N71-29049
- JORDAN, A. W.**  
Electric storage battery  
[NASA-CASE-NPO-11021] c 03 N72-20032
- JORDON, W. J.**  
Inspection gage for boss Patent  
[NASA-CASE-XMF-04966] c 14 N71-17658
- JOSIAS, C. S.**  
Micro current measuring device using plural logarithmic response heated filamentary type diodes Patent  
[NASA-CASE-XNP-00384] c 09 N71-13530
- JOSLYN, A. W.**  
Boiler for generating high quality vapor Patent  
[NASA-CASE-XLE-00785] c 33 N71-16104
- JOYNER, U. T.**  
Nose gear steering system for vehicle with main skids Patent  
[NASA-CASE-XLA-01804] c 02 N70-34160
- JUDD, B. W.**  
Garments for controlling the temperature of the body Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147
- JUDD, J. H.**  
Air frame drag balance Patent  
[NASA-CASE-XLA-00113] c 14 N70-33386
- Spacecraft airlock Patent  
[NASA-CASE-XLA-02050] c 31 N71-22968
- Light regulator  
[NASA-CASE-LAR-10836-1] c 26 N72-27784
- Deposition apparatus  
[NASA-CASE-LAR-10541-1] c 15 N72-32487
- JUDY, P. F.**  
Method and system for in vivo measurement of bone tissue using a two level energy source  
[NASA-CASE-MSC-14276-1] c 52 N77-14737
- JUERGENSEN, K.**  
Regenerative braking system Patent  
[NASA-CASE-XMF-01096] c 10 N71-16030
- JUHASZ, A. J.**  
Controlled separation combustor  
[NASA-CASE-LEW-11593-1] c 20 N76-14190
- JURSCAGA, G. M.**  
Method of fabricating an article with cavities  
[NASA-CASE-LAR-10318-1] c 31 N74-18089
- JUVINALL, G. L.**  
Trialkyl-dihalotantalum and niobium compounds Patent  
[NASA-CASE-XNP-04023] c 06 N71-28808

## K

- KABANA, W. P.**  
Butt welder for fine gauge tungsten/rhenium thermocouple wire  
[NASA-CASE-LAR-10103-1] c 15 N73-14468
- KAHLBAUM, W. M., JR.**  
Chromatically corrected virtual image display  
[NASA-CASE-LAR-12251-1] c 74 N79-14892
- Chromatically corrected virtual image visual display  
[NASA-CASE-LAR-12251-1] c 74 N80-27185
- KAISER, J. A., JR.**  
Scannable beam forming interferometer antenna array system  
[NASA-CASE-GSC-12365-1] c 32 N80-28578
- KALFAYAN, S. H.**  
Epoxy-aziridine polymer product Patent  
[NASA-CASE-NPO-10701] c 06 N71-28620

- Strain gage mounting assembly  
[NASA-CASE-NPO-13170-1] c 35 N76-14430
- Coal desulfurization process  
[NASA-CASE-NPO-13937-1] c 44 N78-31527
- KALIL, L. F.**  
Temperature averaging thermal probe  
[NASA-CASE-GSC-12795-1] c 35 N83-20085
- KALKBRENNER, R. W.**  
Heat transfer device  
[NASA-CASE-NPO-11120-1] c 34 N74-18552
- KALLINS, C.**  
Rotary actuator  
[NASA-CASE-NPO-10244] c 15 N72-26371
- KALSHOVEN, J. E., JR.**  
Method of an apparatus for measuring temperature and pressure  
[NASA-CASE-GSC-12558-1] c 35 N82-29580
- KALVINSKAS, J. J.**  
Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634
- Crude oil desulfurization  
[NASA-CASE-NPO-14542-1] c 25 N82-23282
- Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371
- Hydrodesulfurization of chlorinated coal  
[NASA-CASE-NPO-15304-1] c 25 N83-31743
- Fluidized bed desulfurization  
[NASA-CASE-NPO-15924-1] c 25 N83-38122
- KAMI, S.**  
Gas regulator Patent  
[NASA-CASE-NPO-10298] c 12 N71-17861
- KAMINSKAS, R. A.**  
Penetrating radiation system for detecting the amount of liquid in a tank Patent  
[NASA-CASE-MSC-12280] c 27 N71-16348
- KAMMERMEYER, K.**  
Mixture separation cell Patent  
[NASA-CASE-XMS-02952] c 18 N71-20742
- KAMPINSKY, A.**  
Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent  
[NASA-CASE-XGS-02608] c 07 N70-41878
- Apparatus providing a directive field pattern and attitude sensing of a spin stabilized satellite Patent  
[NASA-CASE-XGS-02807] c 31 N71-23009
- KANABUS, E. W.**  
Apparatus and method of inserting a microelectrode in body tissue or the like using vibration means  
[NASA-CASE-NPO-13910-1] c 52 N79-27836
- KAMBER, H.**  
Acoustic driving of rotor  
[NASA-CASE-NPO-14005-1] c 71 N79-20827
- KANE, J. O.**  
Thermal barrier pressure seal  
[NASA-CASE-MSC-18134-1] c 37 N81-15363
- KANE, T. R.**  
Spacecraft attitude control method and apparatus  
[NASA-CASE-HON-10439] c 21 N72-21824
- KAPUSTKA, R. E.**  
Method and apparatus for conditioning of nickel-cadmium batteries  
[NASA-CASE-MFS-23270-1] c 44 N78-25531
- KARIGAN, G. H.**  
Accumulator  
[NASA-CASE-MFS-19287-1] c 34 N77-30399
- KARIOTIS, A. H.**  
Compression test assembly  
[NASA-CASE-LAR-10440-1] c 14 N73-32323
- KARSH, L.**  
Tape guidance system and apparatus for the provision thereof Patent  
[NASA-CASE-XNP-09453] c 08 N71-19420
- Incremental tape recorder and data rate converter Patent  
[NASA-CASE-XNP-02778] c 08 N71-22710
- KASPAECK, W. E.**  
Precision stepping drive Patent  
[NASA-CASE-MFS-14772] c 15 N71-17692
- Fine adjustment mount  
[NASA-CASE-MFS-20249] c 15 N72-11386
- Adjustable force probe  
[NASA-CASE-MFS-20780] c 14 N72-33377
- KAST, H. B.**  
Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12830-1] c 07 N77-23106
- Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12321-1] c 37 N78-10467
- KASTAN, H.**  
Absorptive splitter for closely spaced supersonic engine air inlets Patent  
[NASA-CASE-XLA-02885] c 28 N71-15583
- KASTNER, S. O.**  
Diffractoid grating configuration for X-ray and ultraviolet focusing  
[NASA-CASE-GSC-12357-1] c 74 N80-21140
- KATOW, M. S.**  
Multi-feed cone Cassegrain antenna Patent  
[NASA-CASE-NPO-10539] c 07 N71-11285
- KATVALA, V. W.**  
Reaction cured glass and glass coatings  
[NASA-CASE-ARC-11051-1] c 27 N78-32260
- Spray coating apparatus having a rotatable workpiece holder  
[NASA-CASE-ARC-11110-1] c 37 N82-24492
- KATZ, J.**  
Arrangement for damping the resonance in a laser diode  
[NASA-CASE-NPO-15980-1] c 38 N82-28818
- KATZ, L.**  
Force measuring instrument Patent  
[NASA-CASE-XMF-00458] c 14 N70-34705
- Optimum predetection diversity receiving system Patent  
[NASA-CASE-XGS-00740] c 07 N71-23098
- Apparatus for obtaining isotropic irradiation of a specimen  
[NASA-CASE-MFS-20085] c 24 N72-11595
- Method and apparatus for supercooling and solidifying substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650
- KATZ, M. G.**  
Method for the preparation of thin-skinned asymmetric reverse osmosis membranes and products thereof  
[NASA-CASE-ARC-11359-1] c 51 N84-28361
- KATZ, N. H.**  
Temperature reducing coating for metals subject to flame exposure Patent  
[NASA-CASE-XLE-00035] c 33 N71-29151
- KATZBERG, S. J.**  
Automatic focus control for facsimile cameras  
[NASA-CASE-LAR-11213-1] c 35 N75-15014
- Spectrometer integrated with a facsimile camera  
[NASA-CASE-LAR-11207-1] c 35 N75-19813
- Device for measuring the contour of a surface  
[NASA-CASE-LAR-11869-1] c 74 N78-27904
- KATZEN, E. D.**  
Protected isotope heat source  
[NASA-CASE-LEW-11227-1] c 73 N75-30876
- KATZIN, L.**  
Breakaway connector  
[NASA-CASE-NPO-11140] c 15 N72-17455
- KAUFMAN, H. R.**  
Ion thruster cathode  
[NASA-CASE-XLE-07087] c 06 N69-39889
- Ion rocket Patent  
[NASA-CASE-XLE-00376] c 28 N70-37245
- Electrostatic ion engine having a permanent magnetic circuit Patent  
[NASA-CASE-XLE-01124] c 28 N71-14043
- Electrostatic ion rocket engine Patent  
[NASA-CASE-XLE-02068] c 28 N71-15661
- Ion beam deflector Patent  
[NASA-CASE-LEW-10689-1] c 28 N71-26173
- KAUFMAN, J. W.**  
Maximeters (peak wind speed anemometers)  
[NASA-CASE-MFS-20918] c 14 N73-25460
- Wind wheel electric power generator  
[NASA-CASE-MFS-23515-1] c 44 N80-21828
- KAUFMAN, W. B.**  
High current electrical lead  
[NASA-CASE-LEW-10950-1] c 33 N74-27683
- KAUFMAN, J. J.**  
Lead-oxygen dc power supply system having a closed loop oxygen and water system  
[NASA-CASE-MFS-23059-1] c 44 N78-27684
- KAVAYA, M. J.**  
Stark effect spectrophone for continuous absorption spectra monitoring  
[NASA-CASE-NPO-15102-1] c 25 N81-25159
- Method and apparatus for transfer function simulator for testing complex systems  
[NASA-CASE-NPO-15696-1] c 38 N82-28819
- Spectrophone stabilized laser with line center offset frequency control  
[NASA-CASE-NPO-15516-1] c 38 N84-22943
- KAZAROFF, J. M.**  
Heat exchanger and method of making  
[NASA-CASE-LEW-12441-1] c 34 N79-13289
- Heat exchanger and method of making  
[NASA-CASE-LEW-12441-2] c 34 N80-24573
- Heat exchanger and method of making  
[NASA-CASE-LEW-12441-3] c 44 N81-24519
- KAZNOFF, A. I.**  
Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28728
- KAZOKAS, G. P.**  
Vacuum leak detector  
[NASA-CASE-LAR-11237-1] c 35 N75-19812
- KEAFER, L. S., JR.**  
Transmitting and reflecting diffuser  
[NASA-CASE-LAR-10385-2] c 70 N74-13436
- Transmitting and reflecting diffuser  
[NASA-CASE-LAR-10385-3] c 74 N78-15879
- KEARNS, W. J.**  
Mount for thermal control system Patent  
[NASA-CASE-NPO-10138] c 33 N71-16357
- KEATHLEY, W. H.**  
Energy absorbing structure Patent Application  
[NASA-CASE-MSC-12279-1] c 15 N70-35679
- Low onset rate energy absorber  
[NASA-CASE-MSC-12279] c 15 N72-17450
- KEATING, J. M.**  
Method and apparatus for attaching physiological monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293
- KEEFER, J. M.**  
Phonocardiogram simulator Patent  
[NASA-CASE-XKS-10804] c 05 N71-24606
- KEENE, W. H.**  
Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 38 N75-15028
- Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493
- KEETON, A. R.**  
Sodium storage and injection system  
[NASA-CASE-NPO-14384-1] c 37 N80-10494
- KEHLET, A. B.**  
Parachute glider Patent  
[NASA-CASE-XLA-00898] c 02 N70-36804
- Space and atmospheric reentry vehicle Patent  
[NASA-CASE-XGS-00260] c 31 N70-37824
- Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938
- Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664
- KELBAUGH, B. N.**  
Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions  
[NASA-CASE-GSC-11169-2] c 05 N73-32011
- KELLER, E. E.**  
Heat exchanger  
[NASA-CASE-MFS-22991-1] c 34 N77-10463
- KELLER, G. C.**  
Plural beam antenna  
[NASA-CASE-GSC-11013-1] c 09 N73-19234
- KELLER, O. F.**  
Pressure regulating system Patent  
[NASA-CASE-NPO-00450] c 15 N70-38803
- KELLER, V. W.**  
Warm fog dissipation using large volume water sprays  
[NASA-CASE-MFS-25962-1] c 09 N84-32398
- KELLEY, H. L.**  
Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400
- KELLEY, J. R.**  
Mechanical stability augmentation system Patent  
[NASA-CASE-XLA-06339] c 02 N71-13422
- KELLEY, W. W.**  
Pitch attitude stabilization system utilizing engine pressure ratio feedback signals  
[NASA-CASE-LAR-12562-1] c 08 N81-26152
- KELLS, M. C.**  
Device for measuring pressure Patent  
[NASA-CASE-XAC-04458] c 14 N71-24232
- KELLY, D. L.**  
Multistage aerospace craft  
[NASA-CASE-XMF-02263] c 05 N74-10907
- KELLY, H. N.**  
Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886
- KELLY, T. P.**  
Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532
- KELLY, W. L., IV**  
Spectrometer integrated with a facsimile camera  
[NASA-CASE-LAR-11207-1] c 35 N75-19813
- Device for measuring the contour of a surface  
[NASA-CASE-LAR-11869-1] c 74 N78-27904
- KELLY, W. W.**  
Velocity vector control system augmented with direct lift control  
[NASA-CASE-LAR-12268-1] c 08 N81-24106
- KELSEY, E. L.**  
Transient-compensated SCR inverter  
[NASA-CASE-XLA-08507] c 09 N69-39984
- SCR blocking pulse gate amplifier Patent  
[NASA-CASE-XLA-07497] c 09 N71-12514
- KEMP, K. L.**  
Pneumatic mirror support system  
[NASA-CASE-XLA-03271] c 11 N69-24321
- KEMP, R. F.**  
Apparatus for field strength measurement of a space vehicle Patent  
[NASA-CASE-XLE-00820] c 14 N71-16014

- KEMP, R. H.**  
Thin-walled pressure vessel Patent  
[NASA-CASE-XLE-04677] c 15 N71-10577
- KENDALL, J. M.**  
Pressure lockdown method and device for coal conversion systems  
[NASA-CASE-NPO-15100-1] c 44 N84-14583
- KENDALL, J. M.**  
Resolution enhanced sound detecting apparatus  
[NASA-CASE-NPO-14134-1] c 71 N79-23753
- KENDALL, J. M., JR.**  
Method of forming frozen spheres in a force-free drop tower  
[NASA-CASE-NPO-14845-1] c 27 N82-28442
- KENDALL, J. M., SR.**  
Conically shaped cavity radiometer with a dual purpose cone winding Patent  
[NASA-CASE-XNP-09701] c 14 N71-26475  
Black body cavity radiometer Patent  
[NASA-CASE-NPO-10810] c 14 N71-27323
- KENDRICK, W. P.**  
Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032  
Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125
- KENNEDY, B. W.**  
Electrical connector Patent Application  
[NASA-CASE-MFS-14741] c 09 N70-20737  
Filter system for control of outgas contamination in vacuum Patent  
[NASA-CASE-MFS-14711] c 15 N71-26185  
Method of making shielded flat cable Patent  
[NASA-CASE-MFS-13687] c 09 N71-28691  
Shielded flat cable  
[NASA-CASE-MFS-13687-2] c 09 N72-22198  
Polyimide resin-fiberglass cloth laminates for printed circuit boards  
[NASA-CASE-MFS-20408] c 18 N73-12604  
Integrated circuit package with lead structure and method of preparing the same  
[NASA-CASE-MFS-21374-1] c 33 N74-12951
- KENNEWAY, A. J., III**  
Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012
- KENNEY, R. L.**  
Geneva mechanism  
[NASA-CASE-NPO-13281-1] c 37 N75-13266
- KENT, W. D.**  
Heat sterilizable patient ventilator  
[NASA-CASE-NPO-13313-1] c 54 N75-27761
- KENYON, G. C.**  
Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087
- KEPLER, C. E.**  
Tertiary flow injection thrust vectoring system Patent  
[NASA-CASE-MFS-20831] c 28 N71-29153
- KERLEY, J. J.**  
Portable appliance security apparatus  
[NASA-CASE-GSC-12399-1] c 33 N81-25299
- KERLEY, J. J., JR.**  
Apparatus for vibrational testing of articles  
[NASA-CASE-GSC-11302-1] c 14 N73-13416
- KERN, C. V.**  
Deformable vehicle wheel Patent  
[NASA-CASE-MFS-20400] c 31 N71-18611
- KERN, J. D.**  
Magnetic recording head and method of making same Patent  
[NASA-CASE-GSC-10097-1] c 08 N71-27210
- KERNODLE, B. H.**  
Inherent redundancy electric heater  
[NASA-CASE-MFS-21462-1] c 33 N74-14935
- KERR, J. H.**  
Traffic survey system  
[NASA-CASE-MFS-22631-1] c 66 N76-19888
- KERSEY, E. D., JR.**  
Angular displacement indicating gas bearing support system Patent  
[NASA-CASE-XLA-09348] c 15 N71-28740
- KERSHNER, D. D.**  
Miniature electro-optical air flow sensor  
[NASA-CASE-LAR-13065-1] c 74 N83-25539
- KERSLAKE, W. R.**  
Ion thruster cathode  
[NASA-CASE-XLE-07087] c 06 N69-39889  
Electronic cathode having a brush-like structure and a relatively thick oxide emissive coating Patent  
[NASA-CASE-XLE-04501] c 09 N71-23190
- KERSTEN, L.**  
Wrist joint assembly  
[NASA-CASE-MFS-23311-1] c 54 N78-17676
- KERWIN, W. J.**  
Nonmagnetic thermal motor for a magnetometer  
[NASA-CASE-XAR-03788] c 09 N69-21313  
Demodulation system Patent  
[NASA-CASE-XAC-04030] c 10 N71-19472
- Transducer circuit and catheter transducer Patent  
[NASA-CASE-ARC-10132-1] c 09 N71-24597
- Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11256
- RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171
- Active RC networks  
[NASA-CASE-ARC-10020] c 10 N72-17172
- Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain  
[NASA-CASE-ARC-10192] c 09 N72-21245
- Integrated structure vacuum tube  
[NASA-CASE-ARC-10445-1] c 31 N76-31365
- KESSEL, J. E.**  
Plural recorder system  
[NASA-CASE-XMS-06949] c 09 N69-21467
- KESSINGER, R. L.**  
Hearing aid malfunction detection system  
[NASA-CASE-MSC-14916-1] c 33 N78-10375
- KEY, C. F.**  
Nonflammable coating compositions  
[NASA-CASE-MFS-20486-2] c 27 N74-17283
- KEYNTON, R. J.**  
Technique for control of free-flight rocket vehicles Patent  
[NASA-CASE-XLA-00937] c 31 N71-17691
- KHAN, A. S.**  
Nical ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505
- KHANNA, S. K.**  
Corrosion resistant coating  
[NASA-CASE-NPO-15928-1] c 26 N84-12289
- KHANNA, S. M.**  
Direct current transformer  
[NASA-CASE-MFS-23659-1] c 33 N79-17133
- KIBBE, R. K.**  
Load cell protection device Patent  
[NASA-CASE-MSC-06782] c 32 N71-15974
- KICHAK, R. A.**  
Inrush current limiter  
[NASA-CASE-GSC-11789-1] c 33 N77-14333
- KIEFER, P. J., JR.**  
Thermal conductive connection and method of making same Patent  
[NASA-CASE-XMS-02087] c 09 N70-41717
- KIKIN, G. M.**  
Multiducted electromagnetic pump Patent  
[NASA-CASE-NPO-10755] c 15 N71-27084
- Shell side liquid metal boiler  
[NASA-CASE-NPO-10831] c 33 N72-20915
- KILLALEA, W. P.**  
Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02164] c 15 N71-20813
- KIM, C.**  
Arterial pulse wave pressure transducer  
[NASA-CASE-GSC-11531-1] c 52 N74-27566
- KIM, H. H.**  
A multichannel photoionization chamber for absorption analysis Patent  
[NASA-CASE-ERC-10044-1] c 14 N71-27090
- KIM, K. M.**  
Means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains  
[NASA-CASE-NPO-14298-1] c 76 N80-32244
- KIMBALL, R. B.**  
Apparatus for remote handling of materials  
[NASA-CASE-LAR-10634-1] c 37 N74-18123
- KINARD, W. H.**  
Particle detection apparatus Patent  
[NASA-CASE-XLA-00135] c 14 N70-33322
- Gas actuated bolt disconnect Patent  
[NASA-CASE-XLA-00326] c 03 N70-34667
- Micrometeoroid velocity measuring device Patent  
[NASA-CASE-XLA-00495] c 14 N70-41332
- Micrometeoroid penetration measuring device Patent  
[NASA-CASE-XLA-00941] c 14 N71-23240
- Deployable pressurized cell structure for a micrometeoroid detector  
[NASA-CASE-LAR-10295-1] c 35 N74-21062
- Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N78-22509
- KINELL, D. K.**  
Four phase logic systems  
[NASA-CASE-MSC-14240-1] c 33 N75-14957
- KING, C. B.**  
Method of obtaining permanent record of surface flow phenomena Patent  
[NASA-CASE-XLA-01353] c 14 N70-41366
- Method and apparatus for bonding a plastics sleeve onto a metallic body Patent  
[NASA-CASE-XLA-01262] c 15 N71-21404
- Dielectric molding apparatus Patent  
[NASA-CASE-LAR-10121-1] c 15 N71-26721
- Butt welder for fine gauge tungsten/rhenium thermocouple wire  
[NASA-CASE-LAR-10103-1] c 15 N73-14468
- KING, H. J.**  
Gas regulator Patent  
[NASA-CASE-NPO-10298] c 12 N71-17661
- KING, H. M.**  
Method of making impurity-type semiconductor electrical contacts Patent  
[NASA-CASE-XMF-01016] c 26 N71-17818
- Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290
- KING, J. V.**  
Liquid hydrogen polygeneration system and process  
[NASA-CASE-KSC-11304-1] c 28 N84-29017
- KING, R. B.**  
Preparation of high purity copper fluoride  
[NASA-CASE-LEW-10794-1] c 06 N72-17093
- KING, R. F.**  
Anthropomorphic master/slave manipulator system  
[NASA-CASE-ARC-10756-1] c 54 N77-32721
- KING, R. W.**  
Method and apparatus for making a heat insulating and ablative structure Patent  
[NASA-CASE-XMS-02009] c 33 N71-20834
- High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272
- KING, W. L.**  
Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942
- KINKEL, J. F.**  
Data transfer system Patent  
[NASA-CASE-NPO-12107] c 08 N71-27255
- KINNARD, K. F.**  
Laser Doppler system for measuring three dimensional vector velocity Patent  
[NASA-CASE-MFS-20386] c 21 N71-19212
- KINO, G. S.**  
Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251
- KINSEL, R. C.**  
Signal multiplexer  
[NASA-CASE-XGS-01110] c 07 N69-24334
- KINZLER, J. A.**  
Emergency escape system Patent  
[NASA-CASE-MSC-12086-1] c 05 N71-12345
- Surface finishing  
[NASA-CASE-MSC-12631-1] c 24 N77-28225
- Surface finishing  
[NASA-CASE-MSC-12631-3] c 27 N81-14077
- Structural members, method and apparatus  
[NASA-CASE-MSC-18217-1] c 31 N81-27323
- KIRALY, L. J.**  
Piezoelectric composite materials  
[NASA-CASE-LEW-12582-1] c 76 N83-34796
- KIRBY, C. A.**  
Translatory shock absorber for attitude sensors  
[NASA-CASE-MFS-22905-1] c 19 N76-22284
- KIRCHMAN, E. J.**  
Accelerometer with FM output Patent  
[NASA-CASE-XLA-00492] c 14 N70-34799
- KIRSTEN, C. C.**  
Solar-powered pump  
[NASA-CASE-NPO-13567-1] c 44 N76-29701
- KIS, G.**  
Optical alignment system Patent  
[NASA-CASE-XNP-02029] c 14 N70-41955
- KISSEL, R. R.**  
Tetherline system for orbiting satellites  
[NASA-CASE-MFS-23564-1] c 15 N78-25119
- Contour measurement system  
[NASA-CASE-MFS-23726-1] c 43 N79-26439
- KISSELL, R. R.**  
Ratometer  
[NASA-CASE-MFS-20418] c 14 N73-24473
- KISZKO, W.**  
Portable superclean air column device Patent  
[NASA-CASE-XMF-03212] c 15 N71-22721
- KITTS, W. T.**  
Cryogenic connector for vacuum use Patent  
[NASA-CASE-XGS-02441] c 15 N70-41629
- KLECHKE, E. W.**  
Nickel aluminate coated low alloy stainless steel  
[NASA-CASE-LEW-11267-1] c 17 N73-32414
- KLEIN, E.**  
Ion-exchange hollow fibers  
[NASA-CASE-NPO-13309-1] c 25 N81-19244
- KLEIN, E. L.**  
Apparatus for inspecting microfilm Patent  
[NASA-CASE-MFS-20240] c 14 N71-26788
- KLEIN, M. G.**  
Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
[NASA-CASE-XLE-04526] c 03 N71-11052

## KLEINBERG, L. L.

- Stable amplifier having a stable quiescent point Patent  
[NASA-CASE-XGS-02812] c 09 N71-19466
- Complementary regenerative switch Patent  
[NASA-CASE-XGS-02751] c 09 N71-23015
- Monostable multivibrator  
[NASA-CASE-GSC-10082-1] c 10 N72-20221
- Active tuned circuit  
[NASA-CASE-GSC-11340-1] c 10 N72-33230
- Ultra-stable oscillator with complementary transistors  
[NASA-CASE-GSC-11513-1] c 33 N74-20862
- JFET oscillator  
[NASA-CASE-GSC-12555-1] c 33 N80-26601
- Reactanceless bandpass amplifier  
[NASA-CASE-GSC-12788-1] c 33 N83-12333
- Tuned analog network  
[NASA-CASE-GSC-12650-1] c 33 N84-14421
- Low noise tuned amplifier  
[NASA-CASE-GSC-12567-1] c 33 N84-22687
- KLEINROCK, L.**  
Data compression system  
[NASA-CASE-XNP-09785] c 08 N69-21928
- Method and apparatus for data compression by a decreasing slope threshold test  
[NASA-CASE-NPO-10769] c 08 N72-11171
- KLIMA, S. J.**  
High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-00726] c 17 N71-15644
- KLING, A. J.**  
Capacitance multiplier and filter synthesizing network  
[NASA-CASE-NPO-11948-1] c 33 N74-32712
- KLING, A. J., JR.**  
Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent  
[NASA-CASE-XMF-08665] c 10 N71-19467
- KLINGMAN, E. E., III**  
Apparatus for calibrating an image dissector tube  
[NASA-CASE-MFS-22208-1] c 33 N75-26244
- Electronic optical transfer function analyzer  
[NASA-CASE-MFS-21672-1] c 74 N76-19935
- KLISCH, J. A.**  
Combustion products generating and metering device  
[NASA-CASE-GSC-11095-1] c 14 N72-10375
- KLOC, I.**  
Penetrometer  
[NASA-CASE-NPO-11103-1] c 35 N77-27367
- KNAPP, M. H.**  
Active clearance control system for a turbomachine  
[NASA-CASE-LEW-12638-1] c 07 N82-32366
- KNAUER, W.**  
Ion thruster  
[NASA-CASE-LEW-10770-1] c 26 N72-22770
- KNECHTEL, E. D.**  
Two force component measuring device Patent  
[NASA-CASE-XAC-04886-1] c 14 N71-20439
- Floating two force component measuring device Patent  
[NASA-CASE-XAC-04885] c 14 N71-23790
- KNOELL, A. C.**  
Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement  
[NASA-CASE-NPO-13784-1] c 27 N78-17215
- Vehicular impact absorption system  
[NASA-CASE-NPO-14014-1] c 37 N79-10420
- KNOOS, S. P.**  
Shock tube bypass piston tunnel  
[NASA-CASE-NPO-12109] c 11 N72-22245
- KO, W. L.**  
Superplastically formed diffusion bonded metallic structure  
[NASA-CASE-FRC-11026-1] c 24 N82-24296
- KOBAYASHI, H. S.**  
Pulse code modulated signal synchronizer  
[NASA-CASE-MSC-12462-1] c 32 N74-20809
- Pulse code modulated signal synchronizer  
[NASA-CASE-MSC-12494-1] c 32 N74-20810
- Doppler radar having phase modulation of both transmitted and reflected return signals  
[NASA-CASE-MSC-18675-1] c 32 N84-22820
- Method and apparatus for receiving and tracking phase modulated signals  
[NASA-CASE-MSC-18170-2] c 32 N84-27952
- KOBAYASHI, H. S.**  
Bit error rate measurement above and below bit rate tracking threshold  
[NASA-CASE-MSC-12743-1] c 32 N79-10263
- KOCH, E. F.**  
Expulsion bladder-equipped storage tank structure Patent  
[NASA-CASE-XNP-00612] c 11 N70-38182
- Combined pressure regulator and shutoff valve  
[NASA-CASE-NPO-13201-1] c 37 N75-15050

## KOCH, K. F.

- CRT blanking and brightness control circuit  
[NASA-CASE-KSC-10647-1] c 10 N72-31273
- KOCH, N. G.**  
Multispectral scanner optical system  
[NASA-CASE-MSC-18255-1] c 74 N80-33210
- KOCZELA, L. J.**  
Adaptive voting computer system  
[NASA-CASE-MSC-13932-1] c 62 N74-14920
- KODA, M. J.**  
Liquid crystal light valve structures  
[NASA-CASE-MSC-20036-1] c 76 N84-22457
- KODIS, R. D.**  
Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-26437
- KOEPP, G. A.**  
Laser apparatus  
[NASA-CASE-GSC-12237-1] c 36 N80-14384
- Off-axis coherently pumped laser  
[NASA-CASE-GSC-12592-1] c 36 N84-28065
- KOFEL, W. K.**  
Tip cap for a rotor blade  
[NASA-CASE-LEW-10355-1] c 07 N84-22560
- KOH, J. L.**  
Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018
- KOHL, W. H.**  
Distributed multiport memory architecture  
[NASA-CASE-NPO-15342-1] c 60 N83-32342
- KOJIMA, G. K.**  
Miniature implantable ultrasonic echosonometer  
[NASA-CASE-ARC-11035-1] c 52 N79-18580
- KOLBLY, R. B.**  
High power microwave power divider Patent  
[NASA-CASE-NPO-11031] c 07 N71-33606
- System for controlling the operation of a variable signal device  
[NASA-CASE-NPO-11064] c 07 N72-11150
- KOLBY, R. B.**  
Direct reading inductance meter  
[NASA-CASE-NPO-13792-1] c 35 N77-32455
- KOLIAD, K. M.**  
Copper doped polycrystalline silicon solar cell  
[NASA-CASE-NPO-14670-1] c 44 N81-19558
- Method of increasing minority carrier lifetime in silicon web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888
- A new solar cell design for improved open circuit voltage and high efficiency  
[NASA-CASE-NPO-16126-1] c 44 N84-32911
- KOLOBOFF, G. J.**  
Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860
- KOLSTEE, H. M.**  
Radiator deployment actuator Patent  
[NASA-CASE-MSC-11817-1] c 15 N71-26611
- KONIGSBERG, E.**  
Accelerometer telemetry system  
[NASA-CASE-ARC-10849-1] c 17 N76-29347
- KOPELSON, B.**  
Rate augmented digital to analog converter Patent  
[NASA-CASE-XLA-07826] c 08 N71-27057
- KOPETSKI, F. J.**  
Ring counter  
[NASA-CASE-XGS-03095] c 09 N69-27463
- KOPIA, L. P.**  
Transmitting and reflecting diffuser  
[NASA-CASE-LAR-10385-2] c 70 N74-13436
- Transmitting and reflecting diffuser  
[NASA-CASE-LAR-10385-3] c 74 N78-15679
- KORABOWSKI, J. J.**  
Pressure garment joint Patent  
[NASA-CASE-XMS-09636] c 05 N71-12344
- Method of forming a root cord restrained convolute section  
[NASA-CASE-MSC-12398] c 05 N72-20098
- KORB, C. L.**  
Method of an apparatus for measuring temperature and pressure  
[NASA-CASE-GSC-12558-1] c 35 N82-29580
- KORDES, E. E.**  
High intensity heat and light unit Patent  
[NASA-CASE-XLA-00141] c 09 N70-33312
- KORNFIELD, D. M.**  
Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242
- KORSCH, D. G.**  
Anastigmatic three-mirror telescope  
[NASA-CASE-MFS-23675-1] c 89 N79-10969
- KORUS, R. A.**  
Process for the preparation of fluorine containing crosslinked elastomeric polytriazine and product so produced  
[NASA-CASE-ARC-11248-1] c 27 N81-17259

## KORVIN, W.

- Self-erecting reflector Patent  
[NASA-CASE-XGS-09190] c 31 N71-16102
- Tracking antenna system Patent  
[NASA-CASE-GSC-10553-1] c 07 N71-18854
- Antenna array at focal plane of reflector with coupling network for beam switching Patent  
[NASA-CASE-GSC-10220-1] c 07 N71-27233
- KOSCHMEIDER, L. A.**  
Bi-polar phase detector and corrector for split phase PCM data signals Patent  
[NASA-CASE-XGS-01590] c 07 N71-12392
- KOSMAHL, H. C.**  
Multistage depressed collector for dual mode operation  
[NASA-CASE-LEW-13282-1] c 33 N82-24415
- KOSMAHL, H. G.**  
Linear magnetic brake with two windings Patent  
[NASA-CASE-XLE-05079] c 15 N71-17652
- Electrostatic collector for charged particles  
[NASA-CASE-LEW-11192-1] c 09 N73-13208
- Electron beam controller  
[NASA-CASE-LEW-11817-1] c 33 N74-10195
- A linearized traveling wave amplifier with hard limiter characteristics  
[NASA-CASE-LEW-13981-1] c 33 N83-25984
- Gyrotron transmitting tube  
[NASA-CASE-LEW-13429-1] c 33 N83-31952
- Ladder supported ring bar circuit  
[NASA-CASE-LEW-13570-1] c 33 N84-16452
- Dielectric based submillimeter backward wave oscillator circuit  
[NASA-CASE-LEW-13736-1] c 33 N84-27974
- KOSMO, J. J.**  
Extravehicular tunnel suit system Patent  
[NASA-CASE-MSC-12243-1] c 05 N71-24728
- KOSSON, R.**  
Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692
- KOTHE, E.**  
Helmet feedport  
[NASA-CASE-XMS-09653] c 54 N78-17680
- KOURTIDES, D. A.**  
Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-2] c 24 N78-27184
- Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-1] c 24 N79-16915
- The 1 - (dialkoxyposphoryl)methyl-2,4- and -2,6-dinitro- and dinitro benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28076
- Polymers of phosphonylmethyl-2,4- and -2,6-diamino benzenes and the like  
[NASA-CASE-ARC-11506-1] c 27 N84-12313
- Fire resistant polymers based on 1-((dialkoxyposphoryl)methyl)-2,4- and -2,6-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702
- Fire blocking systems for aircraft seat cushions  
[NASA-CASE-ARC-11423-1] c 03 N84-33394
- KOVELL, S. P.**  
Method for etching copper Patent  
[NASA-CASE-XGS-08306] c 17 N71-16044
- KOYBAYASHI, H. S.**  
Unbalanced quadrature demodulator  
[NASA-CASE-MSC-14840-1] c 32 N77-24331
- KOZIOL, J. S., JR.**  
Aircraft control system  
[NASA-CASE-ERC-10439] c 02 N73-19004
- KRAMER, F.**  
Device for suppressing sound and heat produced by high-velocity exhaust jets Patent  
[NASA-CASE-XMF-01813] c 26 N70-41582
- KRAMER, J. S.**  
Apparatus for determining thermophysical properties of test specimens  
[NASA-CASE-LAR-11883-1] c 09 N77-27131
- KRAMER, M.**  
Electronic amplifier with power supply switching Patent  
[NASA-CASE-XMS-00945] c 09 N71-10798
- Power supply Patent  
[NASA-CASE-XMS-02159] c 10 N71-22961
- KRASIN, F. E.**  
Discriminator aided phase lock acquisition for suppressed carrier signals  
[NASA-CASE-NPO-14311-1] c 33 N82-29539
- KRATZER, R. H.**  
Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353
- KRAUSE, F. R.**  
Passive optical wind and turbulence detection system Patent  
[NASA-CASE-XMF-14032] c 20 N71-16340



## L

- KRAUSE, I. A.**  
Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149
- KRAUSE, L. N.**  
Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent  
[NASA-CASE-XLE-00266] c 14 N70-34156  
Sensing probe  
[NASA-CASE-LEW-10281-1] c 14 N72-17327
- KRAUSE, M. C.**  
Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493  
Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753
- KRAUSE, S. J.**  
Method and device for determining battery state of charge Patent  
[NASA-CASE-NPO-10194] c 03 N71-20407
- KRAUSHAAR, W. L.**  
Coaxial anode wire for gas radiation counters  
[NASA-CASE-GSC-11492-1] c 35 N74-26949
- KRAVITZ, M.**  
Television camera video level control system  
[NASA-CASE-MSC-18578-1] c 74 N82-27121
- KRAY, W. D.**  
The 1,1,1-triary-2,2,2-trifluoroethanes and process for their synthesis  
[NASA-CASE-ARC-11097-1] c 25 N82-24312
- KREISMAN, W. S.**  
Inflation system for balloon type satellites Patent  
[NASA-CASE-XGS-03351] c 31 N71-16081  
Bakeable McLeod gauge  
[NASA-CASE-XGS-01293-1] c 35 N79-33450
- KRIEQ, H. C., JR.**  
Moisture content and gas sampling device  
[NASA-CASE-MSC-18866-1] c 35 N82-26634
- KRIEVE, W. F.**  
High-voltage cable Patent  
[NASA-CASE-XNP-00738] c 09 N70-38201
- KROPP, C. J.**  
Determination of spot weld quality Patent  
[NASA-CASE-XNP-02588] c 15 N71-18613
- KRSEK, A., JR.**  
Optical torque meter Patent  
[NASA-CASE-XLE-00503] c 14 N70-34818
- KRUPNICK, A. C.**  
Method for detecting hydrogen gas  
[NASA-CASE-XMF-03873] c 06 N69-39733  
Inorganic thermal control coatings  
[NASA-CASE-MFS-20011] c 18 N72-22566  
Nonflammable coating compositions  
[NASA-CASE-MFS-20488-2] c 27 N74-17283  
Method for making an aluminum or copper substrate panel for selective absorption of solar energy  
[NASA-CASE-MFS-23518-1] c 44 N79-11489  
Aluminum or copper substrate panel for selective absorption of solar energy  
[NASA-CASE-MFS-23518-3] c 44 N80-18452
- KUBACKI, R. M.**  
Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge  
[NASA-CASE-ARC-11057-1] c 27 N78-31233  
Process for producing a well-adhered durable optical coating on an optical plastic substrate  
[NASA-CASE-ARC-11039-1] c 74 N78-32854
- KUBICA, A. J.**  
Decomposition unit Patent  
[NASA-CASE-XMS-00583] c 28 N70-38504
- KUBICZ, A. P.**  
Signal path series step biased multidevice high efficiency amplifier Patent  
[NASA-CASE-GSC-10668-1] c 07 N71-28430  
Power responsive overload sensing circuit Patent  
[NASA-CASE-GSC-10687-1] c 10 N71-33129  
Infinite range electronics gain control circuit  
[NASA-CASE-GSC-10788-1] c 10 N72-28241
- KUBIK, C. F.**  
Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent  
[NASA-CASE-XNP-01310] c 33 N71-28852
- KUBIK, J. S.**  
Device for preventing high voltage arcing in electron beam welding Patent  
[NASA-CASE-XMF-08522] c 15 N71-19486
- KUBOKAWA, C. C.**  
Fastener apparatus Patent  
[NASA-CASE-ARC-10140-1] c 15 N71-17653
- KUEBLER, M. E.**  
Method and means for damping nutation in a satellite Patent  
[NASA-CASE-XMF-00442] c 31 N71-10747
- KUENZLY, J. D.**  
Low thrust monopropellant engine  
[NASA-CASE-GSC-12194-2] c 20 N82-18314
- KUGATH, D. A.**  
Remote manipulator system  
[NASA-CASE-MFS-22022-1] c 37 N78-15460
- KUHN, R. F., JR.**  
Universal restrainer and joint Patent  
[NASA-CASE-XNP-02278] c 15 N71-28951  
Internally supported flexible duct joint  
[NASA-CASE-MFS-19193-1] c 37 N75-19688
- KUHNS, P. W.**  
Generator for a space power system Patent  
[NASA-CASE-XLE-04250] c 09 N71-20446
- KUMAR, D.**  
Amine terminated bisaspartimides, process for preparation thereof, and polymers thereof  
[NASA-CASE-ARC-11421-1] c 27 N84-16340  
Fire and heat resistant laminating resins based on maleimide substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22687
- KUMINECZ, J. F.**  
High temperature emittance coatings and coating compositions  
[NASA-CASE-MSC-18851-1] c 27 N82-26460  
Spray applicator for spraying coatings and other fluids in space  
[NASA-CASE-MSC-18852-1] c 37 N82-28640
- KUO, Y. S.**  
Improved ingot slicing machine  
[NASA-CASE-NPO-15483-1] c 37 N82-28642
- KUPPERIAN, J. E., JR.**  
Low friction magnetic recording tape Patent  
[NASA-CASE-XGS-00373] c 23 N71-15978
- KURAL, M. H.**  
Strain arrestor plate for fused silica tile  
[NASA-CASE-MSC-14182-1] c 27 N76-14264
- KURIGER, W. L.**  
Short range laser obstacle detector  
[NASA-CASE-NPO-11858-1] c 38 N74-15145
- KURPLE, W.**  
Bit error rate measurement above and below bit rate tracking threshold  
[NASA-CASE-MSC-12743-1] c 32 N79-10263
- KURTZ, G. W.**  
Two-dimensional scanner apparatus  
[NASA-CASE-MFS-25687-1] c 35 N84-22928
- KURTZ, R. L.**  
Hybrid holographic system using reflected and transmitted object beams simultaneously Patent  
[NASA-CASE-MFS-20074] c 18 N71-15565  
Multiple image storing system for high speed projectile holography  
[NASA-CASE-MFS-20598] c 14 N72-17324  
Real time moving scene holographic camera system  
[NASA-CASE-MFS-21087-1] c 35 N74-17153  
Holographic system for nondestructive testing  
[NASA-CASE-MFS-21704-1] c 35 N75-25124  
Real time, large volume, moving scene holographic camera system  
[NASA-CASE-MFS-22537-1] c 35 N75-27328  
Holographic motion picture camera with Doppler shift compensation  
[NASA-CASE-MFS-22517-1] c 35 N76-18402  
Projection system for display of parallax and perspective  
[NASA-CASE-MFS-23194-1] c 35 N78-17357  
Hybrid holographic non-destructive test system  
[NASA-CASE-MFS-23114-1] c 38 N78-32447
- KURVIN, C. W.**  
Remote platform power conserving system  
[NASA-CASE-GSC-11182-1] c 15 N75-13007
- KURYLO, M. J., III**  
Ultraviolet atomic emission detector  
[NASA-CASE-HQN-10759-1] c 14 N72-25428
- KURZHALS, P. R.**  
Spacecraft experiment pointing and attitude control system Patent  
[NASA-CASE-XLA-05484] c 21 N71-14132  
Attitude control and damping system for spacecraft Patent  
[NASA-CASE-XLA-02551] c 21 N71-21708
- KUSHIDA, R. O.**  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-1] c 37 N76-16446  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-2] c 44 N76-29700
- KWONG, H.**  
The 1,2,4-oxadiazole elastomers  
[NASA-CASE-ARC-11253-1] c 27 N81-17262  
Preparation of crosslinked 1,2,4-oxadiazole polymer  
[NASA-CASE-ARC-11253-2] c 27 N82-24338
- KWONGS, H.**  
Bifunctional monomers having terminal oxime and cyano or amidine groups  
[NASA-CASE-ARC-11253-3] c 27 N81-24256
- LA RUSSA, F. J.**  
Array phasing device Patent  
[NASA-CASE-ERC-10048] c 10 N71-18722
- LA VIGNA, T. A.**  
Buck boost voltage regulation circuit Patent  
[NASA-CASE-GSC-10735-1] c 10 N71-26085
- LACEY, R. E.**  
Infusible silazane polymer and process for producing same  
[NASA-CASE-XMF-02526-1] c 27 N79-21190
- LACKNER, H. G.**  
Method and apparatus of simulating zero gravity conditions Patent  
[NASA-CASE-MFS-12750] c 27 N71-16223  
Method and apparatus for checking the stability of a setup for making reflection type holograms  
[NASA-CASE-MFS-21455-1] c 35 N74-15146
- LACY, L. L.**  
Containerless high temperature calorimeter apparatus  
[NASA-CASE-MFS-23923-1] c 35 N81-19426  
Method and apparatus for supercooling and solidifying substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650
- LA FEYER, A. E.**  
Directional gear ratio transmissions  
[NASA-CASE-LAR-12644-1] c 37 N84-28084
- LA FLAME, D. T.**  
Pseudonoise code tracking loop  
[NASA-CASE-MSC-18035-1] c 32 N81-15179
- LAHMEYER, C. R.**  
Nanosequence digital logic controller  
[NASA-CASE-NPO-18116-1] c 60 N84-25306
- LAIACONA, F. P.**  
Bonding of reinforced Teflon to metals  
[NASA-CASE-MFS-20482] c 15 N72-22492  
Method of preparing graphite reinforced aluminum composite  
[NASA-CASE-MFS-21077-1] c 24 N75-28135
- LAINE, D. D.**  
Electromechanical actuator  
[NASA-CASE-XNP-05975] c 15 N69-23185
- LAMAR, J. E.**  
Vortex-lift roll-control device  
[NASA-CASE-LAR-11868-2] c 08 N79-14108
- LAMB, R. H.**  
Hypersonic reentry vehicle Patent  
[NASA-CASE-XMS-04142] c 31 N70-41631
- LAMBSON, K. H.**  
Pressure control valve  
[NASA-CASE-ARC-11251-1] c 37 N81-17433  
Spine immobilization apparatus  
[NASA-CASE-ARC-11187-1] c 52 N81-25662
- LAMPERT, H. M.**  
Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent  
[NASA-CASE-XGS-02011] c 15 N71-20739
- LAMPTON, M. L.**  
Resistive anode image converter  
[NASA-CASE-HQN-10878-1] c 33 N76-27473
- LANDAUER, F. P.**  
Means for generating a sync signal in an FM communication system Patent  
[NASA-CASE-XNP-10830] c 07 N71-11281
- LANDAUER, F. P., JR.**  
Multispectral imaging and analysis system  
[NASA-CASE-NPO-13691-1] c 43 N79-17288
- LANDEL, R. F.**  
Method for controlling vapor content of a gas  
[NASA-CASE-NPO-10633] c 03 N72-28025  
Parallel-plate viscometer with double diaphragm suspension  
[NASA-CASE-NPO-11387] c 14 N73-14429  
Preparation of alkali metal dispersions  
[NASA-CASE-XNP-08878] c 17 N73-28573  
Polymeric compositions and their method of manufacture  
[NASA-CASE-NPO-10424-1] c 27 N81-24258
- LANDES, H. B.**  
Active microwave lenses and windows  
[NASA-CASE-LAR-10513-1] c 07 N72-25170  
Thin film microwave iris  
[NASA-CASE-LAR-10511-1] c 09 N72-29172
- LANE, J. W.**  
Wide range dynamic pressure sensor  
[NASA-CASE-XNP-10263-1] c 14 N72-22438
- LANEY, C. C., JR.**  
Micrometeoroid velocity measuring device Patent  
[NASA-CASE-XLA-00495] c 14 N70-41332  
Micrometeoroid penetration measuring device Patent  
[NASA-CASE-XLA-00941] c 14 N71-23240
- LANFORD, W. E.**  
Folding apparatus Patent  
[NASA-CASE-XLA-00137] c 15 N70-33180

- Reflector space satellite Patent  
[NASA-CASE-XLA-00138] c 31 N70-37981
- LANG, R.**  
Venting device for pressurized space suit helmet Patent  
[NASA-CASE-XMS-09652-1] c 05 N71-26333  
Protective garment ventilation system  
[NASA-CASE-XMS-04928] c 54 N78-17679
- LANGE, O. H.**  
Continuous detonation reaction engine Patent  
[NASA-CASE-XMF-06926] c 28 N71-22983
- LANGE, R. A.**  
Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346
- LANGMUIR, R. V.**  
Quadrupole mass filter with means to generate a noise spectrum exclusive of the resonant frequency of the desired ions to deflect stable ions  
[NASA-CASE-NXP-04231] c 14 N73-32325
- LANSING, F. L.**  
Stable density stratification solar pond  
[NASA-CASE-NPO-15419-2] c 44 N84-32910
- LANSING, J. C., JR.**  
Method and apparatus for optically monitoring the angular position of a rotating mirror  
[NASA-CASE-GSC-11353-1] c 74 N74-21304
- LANTZ, E.**  
Gaseous control system for nuclear reactors  
[NASA-CASE-XLE-04599] c 22 N72-20597
- LARK, R. F.**  
Hybrid composite laminate structures  
[NASA-CASE-LEW-12118-1] c 24 N77-27188
- LARMER, J. W.**  
Conforming polisher for aspheric surface of revolution Patent  
[NASA-CASE-XGS-02884] c 15 N71-22705
- LARSON, L. L.**  
Coaxial injector for reaction motors  
[NASA-CASE-NPO-11095] c 15 N72-25455
- LARSON, T. P.**  
Filter regeneration systems  
[NASA-CASE-MS-C-14273-1] c 34 N75-33342
- LATHAM, E. A.**  
The engine air intake system  
[NASA-CASE-ARC-10761-1] c 07 N77-18154  
Aircraft engine nozzle  
[NASA-CASE-ARC-10977-1] c 07 N80-32392
- LATTO, W. T., JR.**  
Small rocket engine Patent  
[NASA-CASE-XLE-00685] c 28 N70-41992
- LAU, K. Y.**  
Fiber optic transmission line stabilization apparatus and method  
[NASA-CASE-NPO-15036-1] c 74 N82-19029
- LAUB, J. H.**  
Attitude control for spacecraft Patent  
[NASA-CASE-XNP-00294] c 21 N70-36938  
Slit regulated gas journal bearing Patent  
[NASA-CASE-XNP-00476] c 15 N70-38620
- LAUDENSLAGER, J. B.**  
Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418
- LAUDERDALE, W. R.**  
Method and apparatus for securing to a spacecraft Patent  
[NASA-CASE-MFS-11133] c 31 N71-16222
- LAUDENSLAGER, J. B.**  
Charge transfer reaction laser with preionization means  
[NASA-CASE-NPO-13945-1] c 36 N78-27402
- LAUE, E. G.**  
Irradiance measuring device  
[NASA-CASE-NPO-11493] c 14 N73-12447  
Wind sensor  
[NASA-CASE-NPO-13462-1] c 35 N76-24524  
Passive intrusion detection system  
[NASA-CASE-NPO-13804-1] c 33 N80-23559  
Trace water sensor  
[NASA-CASE-NPO-15722-1] c 35 N83-20084  
Cloud cover sensor  
[NASA-CASE-NPO-14936-1] c 47 N83-32232
- LAUE, H. H.**  
Driving lamps by induction  
[NASA-CASE-MFS-21214-1] c 09 N73-30181
- LAUE, J. H.**  
Multi-mission module Patent  
[NASA-CASE-XMF-01543] c 31 N71-17730
- LAUGHLIN, C. R., JR.**  
Position location system and method Patent  
[NASA-CASE-GSC-10087-2] c 21 N71-13958  
Position location and data collection system and method Patent  
[NASA-CASE-GSC-10083-1] c 30 N71-16090  
Traffic control system and method Patent  
[NASA-CASE-GSC-10087-1] c 02 N71-19287

- Diversity receiving system with diversity phase lock Patent  
[NASA-CASE-XGS-01222] c 10 N71-20841  
Position location system and method  
[NASA-CASE-GSC-10087-3] c 07 N72-12080  
Doppler compensation by shifting transmitted object frequency within limits  
[NASA-CASE-GSC-10087-4] c 07 N73-20174
- LAUMAN, E. A.**  
Hydrogen-fueled engine  
[NASA-CASE-NPO-13763-1] c 44 N78-33526
- LAURENCE, J. C.**  
Method of fabricating a twisted composite superconductor  
[NASA-CASE-LEW-11015] c 26 N73-32571
- LAURIE, R. O.**  
Adjustable mount for a trihedral mirror Patent  
[NASA-CASE-XNP-08907] c 23 N71-29123
- LAUSTEN, M. F.**  
Spray applicator for spraying coatings and other fluids in space  
[NASA-CASE-MS-C-18852-1] c 37 N82-28640
- LAUVER, R. W.**  
Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-2] c 27 N83-30651  
Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-3] c 24 N84-22698  
Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-4] c 24 N84-22699  
Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-5] c 24 N84-22700  
Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-6] c 24 N84-22701  
Chemical approach for controlling nadamide cure temperature and rate  
[NASA-CASE-LEW-13770-1] c 27 N84-27885
- LAVIGNE, R. C.**  
Position location and data collection system and method Patent  
[NASA-CASE-GSC-10083-1] c 30 N71-16090
- LAWHITE, E.**  
Drying apparatus for photographic sheet material  
[NASA-CASE-GSC-11074-1] c 14 N73-28489
- LAWING, P. L.**  
Hypersonic airbreathing missile  
[NASA-CASE-LAR-12264-1] c 15 N78-32168  
Cooling system for high speed aircraft  
[NASA-CASE-LAR-12406-1] c 05 N81-26114
- LAWRENCE, E. D.**  
Variable frequency oscillator with temperature compensation Patent  
[NASA-CASE-XNP-03916] c 09 N71-28810
- LAWRENCE, T. R.**  
Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493  
Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753
- LAWSON, A. G.**  
Modified spiral wound retaining ring  
[NASA-CASE-LAR-12361-1] c 37 N83-19091  
Shell tile thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27886
- LAWSON, B. D.**  
Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-38410  
Space capsule ejection assembly Patent  
[NASA-CASE-XMF-03169] c 31 N71-15675  
Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking  
[NASA-CASE-MFS-23267-1] c 35 N77-20401
- LAWSON, D. D.**  
Polymeric electrolytic hygrometer  
[NASA-CASE-NPO-13948-1] c 35 N78-25391  
Dual membrane hollow fiber fuel cell and method of operating same  
[NASA-CASE-NPO-13732-1] c 44 N79-10513  
Thermochemical generation of hydrogen  
[NASA-CASE-NPO-15015-1] c 25 N82-28368  
Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15767-1] c 23 N84-16255
- LAYLAND, J. W.**  
Communications link for computers  
[NASA-CASE-NPO-11161] c 08 N72-25207  
Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267
- LE BEL, P. J.**  
Ablation sensor Patent  
[NASA-CASE-XLA-01794] c 33 N71-21586

- LE DOUX, F. N.**  
Bacteriostatic conformal coating and methods of application Patent  
[NASA-CASE-GSC-10007] c 18 N71-16046
- LE VAY, K. H.**  
Holder for crystal resonators Patent  
[NASA-CASE-XNP-03637] c 15 N71-21311
- LEATHERWOOD, J. D.**  
Active vibration isolator for flexible bodies Patent  
[NASA-CASE-LAR-10106-1] c 15 N71-27169  
Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445
- LEAVY, W. A.**  
Switching mechanism with energy storage means Patent  
[NASA-CASE-XGS-00473] c 03 N70-38713  
Antenna deployment mechanism for use with a spacecraft  
[NASA-CASE-GSC-12331-1] c 18 N80-14183
- LEBLANC, L. P.**  
Thermocouple, multiple junction reference oven  
[NASA-CASE-FRC-10112-1] c 35 N81-26431
- LEDBETTER, F. E.**  
Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811
- LEDBETTER, F. E., III**  
Method of bonding plasticized elastomer to metal and articles produced thereby  
[NASA-CASE-MFS-25181-1] c 27 N82-24340
- LEE, C. E.**  
Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688
- LEE, D. A.**  
Hermetically sealed explosive release mechanism Patent  
[NASA-CASE-XGS-00824] c 15 N71-16078
- LEE, D. H.**  
Ignition means for monopropellant Patent  
[NASA-CASE-XNP-00876] c 28 N70-41311
- LEE, J. H.**  
Solar driven liquid metal MHD power generator  
[NASA-CASE-LAR-12495-1] c 44 N83-28573  
Solar pumped laser  
[NASA-CASE-LAR-12870-1] c 36 N84-16542
- LEE, J. S.**  
High voltage transistor circuit Patent  
[NASA-CASE-XNP-06937] c 09 N71-19516
- LEE, M. C.**  
Dual resonant cavity absorption cell Patent  
[NASA-CASE-LAR-10305] c 14 N71-26137  
Production of ultrapure amorphous metals utilizing acoustic cooling  
[NASA-CASE-NPO-15658-1] c 26 N83-19890  
Acoustic suspension system  
[NASA-CASE-NPO-15435-1] c 71 N83-36846  
Contactless pellet fabrication  
[NASA-CASE-NPO-15592-1] c 71 N84-16940  
Vibrating-chamber levitation systems  
[NASA-CASE-NPO-16142-1] c 71 N84-16948
- LEE, R. D.**  
Telemetry actuated switch  
[NASA-CASE-ARC-10105] c 09 N72-17153  
Metallic intrusion detector system  
[NASA-CASE-ARC-10265-1] c 10 N72-28240  
Intruder detection system  
[NASA-CASE-ARC-10097-2] c 07 N73-25160  
Ultrasonic biomedical measuring and recording apparatus  
[NASA-CASE-ARC-10597-1] c 52 N74-20726  
Bio-isolated dc operational amplifier  
[NASA-CASE-ARC-10596-1] c 33 N74-21851  
Reference apparatus for medical ultrasonic transducer  
[NASA-CASE-ARC-10753-1] c 54 N75-27760  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-1] c 52 N76-33835  
Biomedical ultrasonoscope  
[NASA-CASE-ARC-10994-2] c 52 N79-26771  
Scanning seismic intrusion detection method and apparatus  
[NASA-CASE-ARC-11317-1] c 35 N83-34272
- LEE, S. H.**  
Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932
- LEE, S. Y.**  
Physical correction filter for improving the optical quality of an image  
[NASA-CASE-HQN-10542-1] c 74 N75-25708  
Method of neutralizing the corrosive surface of amine-cured epoxy resins  
[NASA-CASE-GSC-12686-1] c 27 N83-34039

- LEE, W. S.**  
Surface finishing  
[NASA-CASE-MSC-12631-1] c 24 N77-28225  
Surface finishing  
[NASA-CASE-MSC-12631-3] c 27 N81-14077
- LEEB, W. R.**  
Method and apparatus for splitting a beam of energy  
[NASA-CASE-GSC-12083-1] c 73 N78-32848
- LEEPER, W. A.**  
High efficiency multifrequency feed  
[NASA-CASE-GSC-11909] c 32 N74-20863
- LEES, W. L.**  
Field ionization electrodes Patent  
[NASA-CASE-ERC-10013] c 09 N71-26678  
Method and apparatus for limiting field emission current  
[NASA-CASE-ERC-10015-2] c 10 N72-27246
- LEFFKE, W. O.**  
Flexibly connected support and skin Patent  
[NASA-CASE-XLA-01027] c 31 N71-24035
- LEFTWICH, R. F.**  
Multi-lobar scan horizon sensor Patent  
[NASA-CASE-XGS-00809] c 21 N70-35427
- LEGER, L. J.**  
Method and device for detection of surface discontinuities or defects  
[NASA-CASE-MSC-14187-1] c 35 N74-32879  
Thermal insulation attaching means  
[NASA-CASE-MSC-12619-2] c 27 N79-12221  
High temperature emittance coatings and coating compositions  
[NASA-CASE-MSC-18851-1] c 27 N82-26460
- LEHMANN, E. M.**  
Fluid thrust control system  
[NASA-CASE-XMF-05964-1] c 20 N79-21124
- LEHOCZYK, S. L.**  
Method of preparing radially homogeneous mercury cadmium telluride crystals  
[NASA-CASE-MFS-25786-1] c 76 N83-18533
- LEIBECKI, H. F.**  
Electrically conductive fluorocarbon polymer  
[NASA-CASE-XLE-06774-2] c 06 N72-25150
- LEIBERT, C. H.**  
Thermal barrier coating system  
[NASA-CASE-LEW-12554-1] c 34 N78-18355
- LEIBOWITZ, L. P.**  
Annular arc accelerator shock tube  
[NASA-CASE-NPO-13528-1] c 09 N77-10071
- LEIFFER, J. L.**  
Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532
- LEININGER, D. B.**  
Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310
- LEINKRAM, C. Z.**  
GaAs Schottky barrier photo-responsive device and method of fabrication  
[NASA-CASE-GSC-12816-1] c 76 N83-30268
- LEIPOLD, M. H.**  
Method of controlling defect orientation in silicon crystal ribbon growth  
[NASA-CASE-NPO-13918-1] c 76 N79-11920
- LEISER, D. B.**  
Silica reusable surface insulation  
[NASA-CASE-ARC-10721-1] c 27 N76-22376  
Reaction cured glass and glass coatings  
[NASA-CASE-ARC-11051-1] c 27 N78-32260  
Fibrous refractory composite insulation  
[NASA-CASE-ARC-11169-1] c 24 N79-24062  
Adjustable high emittance gap filler  
[NASA-CASE-ARC-11310-1] c 27 N82-24339  
High temperature glass thermal control structure and coating  
[NASA-CASE-ARC-11164-1] c 44 N83-34448
- LEISS, A.**  
Air frame drag balance Patent  
[NASA-CASE-XLA-00113] c 14 N70-33386
- LEMCOE, M. M.**  
Attaching of strain gages to substrates  
[NASA-CASE-FRC-10093-1] c 35 N80-20560
- LEMOIS, F. R.**  
Metallic hot wire anemometer  
[NASA-CASE-ARC-10911-1] c 35 N77-20400
- LEMSON, P. H.**  
Broadband modified turnstile antenna Patent  
[NASA-CASE-MSC-12209] c 09 N71-24842
- LENAHAN, D. T.**  
Air modulation apparatus  
[NASA-CASE-LEW-13524-1] c 07 N84-33410
- LENETT, S. D.**  
Method and apparatus for receiving and tracking phase modulated signals  
[NASA-CASE-MSC-16170-2] c 32 N84-27952
- LENNON, C. L.**  
Remote lightning monitor system  
[NASA-CASE-KSC-11031-1] c 33 N79-11315  
Lightning discharge identification system  
[NASA-CASE-KSC-11099-1] c 47 N82-24779
- LENT, W. E.**  
Method for fiberizing ceramic materials Patent  
[NASA-CASE-XNP-00597] c 18 N71-23088
- LEON, H. A.**  
Stirring apparatus for plural test tubes Patent  
[NASA-CASE-XAC-06958] c 15 N71-21177  
Automatic real-time pair-feeding system for animals  
[NASA-CASE-ARC-10302-1] c 51 N74-15778
- LEONARD, E. T.**  
Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397
- LEPP, D. R.**  
Phototropic composition of matter  
[NASA-CASE-XGS-03738] c 14 N72-22443
- LENNER, N. R.**  
Method of carbonizing polyacrylonitrile fibers  
[NASA-CASE-ARC-11281-1] c 24 N83-25789
- LENER, T.**  
Modulator for tone and binary signals  
[NASA-CASE-GSC-11743-1] c 32 N75-24981
- LESH, J. R.**  
Multiple rate digital command detection system with range clean-up capability  
[NASA-CASE-NPO-13753-1] c 32 N77-20289  
Electronic consscanning spacecraft communication system  
[NASA-CASE-NPO-15899-1] c 32 N83-19970
- LESKO, J. G., JR.**  
Programmable telemetry system Patent  
[NASA-CASE-GSC-10131-1] c 07 N71-24624
- LESNIEWSKI, R. J.**  
Variable digital processor including a register for shifting and rotating bits in either direction Patent  
[NASA-CASE-GSC-10188] c 08 N71-33110  
Data processor with conditionally supplied clock signals  
[NASA-CASE-GSC-10975-1] c 08 N73-13187
- LESSLEY, R. L.**  
Rotating shaft seal Patent  
[NASA-CASE-XNP-02862-1] c 15 N71-26294
- LESSMANN, G. G.**  
Bimetallic junctions  
[NASA-CASE-LEW-11573-1] c 26 N77-28265
- LEVIN, H.**  
Refractory porcelain enamel passive control coating for high temperature alloys  
[NASA-CASE-MFS-22324-1] c 27 N75-27160  
Thermal reactor  
[NASA-CASE-NPO-14369-1] c 44 N83-10501
- LEVIN, K. L.**  
Lunar landing flight research vehicle Patent  
[NASA-CASE-XFR-00929] c 31 N70-34966
- LEVINE, M. W.**  
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency  
[NASA-CASE-HQN-10654-1] c 16 N73-13489  
Tunable cavity resonator with ramp shaped supports  
[NASA-CASE-HQN-10790-1] c 38 N74-11313
- LEVINE, S. R.**  
Fused silicide coatings containing discrete particles for protecting niobium alloys  
[NASA-CASE-LEW-11179-1] c 27 N76-18229  
Corrosion resistant thermal barrier coating  
[NASA-CASE-LEW-13088-1] c 26 N81-25188  
Coating with overlay metallic-cermet alloy systems  
[NASA-CASE-LEW-13639-2] c 26 N84-27855  
Overlay metallic-cermet alloy coating systems  
[NASA-CASE-LEW-13639-1] c 26 N84-33555
- LEVINSOHN, M.**  
Conforming polisher for aspheric surface of revolution Patent  
[NASA-CASE-XGS-02884] c 15 N71-22705
- LEVIS, C. A.**  
Distributed-switch Dicke radiometers  
[NASA-CASE-GSC-12219-1] c 35 N80-18359
- LEVY, G. S.**  
Multi-feed cone Cassegrain antenna Patent  
[NASA-CASE-NPO-10539] c 07 N71-11285
- LEWICKI, G. W.**  
High voltage transistor amplifier with constant current load  
[NASA-CASE-NPO-11023] c 09 N72-17155  
Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control  
[NASA-CASE-NPO-11317-2] c 36 N74-13205  
Use of thin film light detector  
[NASA-CASE-NPO-11432-2] c 35 N74-15090  
Stored charge transistor  
[NASA-CASE-NPO-11156-2] c 33 N75-31331
- Magneto-optic detection system with noise cancellation  
[NASA-CASE-NPO-11954-1] c 35 N78-29421  
Thermomagnetic recording and magneto-optic playback system  
[NASA-CASE-NPO-10872-1] c 35 N79-16246  
Manganese bismuth films with narrow transfer characteristics for Curie-point switching  
[NASA-CASE-NPO-11338-1] c 76 N79-16678
- LEWIS, B. F.**  
Photoelectron spectrometer with means for stabilizing sample surface potential  
[NASA-CASE-NPO-13772-1] c 35 N78-10429
- LEWIS, B. W.**  
Process for applying black coating to metals Patent  
[NASA-CASE-XLA-06199] c 15 N71-24875  
Barium release system  
[NASA-CASE-LAR-10670-1] c 06 N73-30097  
Rocket having barium release system to create ion clouds in the upper atmosphere  
[NASA-CASE-LAR-10670-2] c 15 N74-27360
- LEWIS, D. J.**  
Mandrel for shaping solid propellant rocket fuel into a motor casing Patent  
[NASA-CASE-XLA-00304] c 27 N70-34783  
Solid propellant rocket motor and method of making same  
[NASA-CASE-XLA-1349] c 20 N77-17143
- LEWIS, G. W.**  
Subminiature insertable force transducer  
[NASA-CASE-NPO-13423-1] c 33 N75-31329  
Miniature muscle displacement transducer  
[NASA-CASE-NPO-13518-1] c 33 N76-19338  
Myocardium wall thickness transducer and measuring method  
[NASA-CASE-NPO-13844-1] c 52 N76-29895  
Catheter tip force transducer for cardiovascular research  
[NASA-CASE-NPO-13843-1] c 52 N76-29896  
Simultaneous muscle force and displacement transducer  
[NASA-CASE-NPO-14212-1] c 52 N80-27072  
Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703
- LEWIS, J. R.**  
Automatic transponder  
[NASA-CASE-GSC-12075-1] c 32 N77-31350
- LEWIS, R.**  
High temperature ferromagnetic cobalt-base alloy Patent  
[NASA-CASE-XLE-03629] c 17 N71-23248
- LEWIS, T. L.**  
Acoustical transducer calibrating system and apparatus  
[NASA-CASE-FRC-10060-1] c 14 N73-27379
- LEWYNN, L. L.**  
Analog-to-digital converter  
[NASA-CASE-XNP-00477] c 08 N73-28045
- LI, S. P.**  
Induced junction solar cell and method of fabrication  
[NASA-CASE-NPO-13786-1] c 44 N80-29835
- LIBBEY, C. E.**  
Flexible wing deployment device Patent  
[NASA-CASE-XLA-01220] c 02 N70-41863
- LIBBY, J. N.**  
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent  
[NASA-CASE-XGS-00381] c 09 N70-34819  
Reversible ring counter employing cascaded single SCR stages Patent  
[NASA-CASE-XGS-01473] c 09 N71-10673
- LIBBY, W. F.**  
Continuous plasma light source  
[NASA-CASE-XNP-04167-2] c 25 N72-24753  
Continuous plasma laser  
[NASA-CASE-XNP-04167-3] c 36 N77-19416
- LIBEROTTI, J.**  
Valving device for automatic refilling in cryogenic liquid systems  
[NASA-CASE-NPO-11177] c 15 N72-17453
- LIEBERMAN, S.**  
Resonant infrasonic gauging apparatus  
[NASA-CASE-MSC-11847-1] c 14 N72-11383
- LIEBERT, C. H.**  
Covering solid, film cooled surfaces with a duplex thermal barrier coating  
[NASA-CASE-LEW-13450-1] c 31 N83-35177
- LIGHT, D. J.**  
Fixture for supporting articles during vibration tests  
[NASA-CASE-MFS-20523] c 14 N72-27412
- LIGHTSEY, G. R.**  
Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids  
[NASA-CASE-LEW-11325-1] c 06 N73-27980

- LILLEY, A. E.**  
Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437
- LIM, L. Y.**  
Signal processing apparatus for multiplex transmission  
Patent  
[NASA-CASE-NPO-10388] c 07 N71-24622
- LIN, E. I. H.**  
Saltless solar pond  
[NASA-CASE-NPO-15808-1] c 44 N84-34792
- LINDBERG, J. G.**  
Method and apparatus for varying thermal conductivity  
Patent  
[NASA-CASE-XNP-05524] c 33 N71-24876
- LINDBERG, R. A.**  
High temperature beryllium oxide capacitor  
[NASA-CASE-LEW-11938-1] c 33 N76-15373  
Bimetallic junctions  
[NASA-CASE-LEW-11573-1] c 26 N77-28265
- LINDERFELT, H. R.**  
An airlock  
[NASA-CASE-MFS-20922] c 31 N72-20840  
Airlock  
[NASA-CASE-MFS-20922-1] c 18 N74-22136
- LINDSEY, J. F., III**  
Flexible blade antenna Patent  
[NASA-CASE-MSC-12101] c 09 N71-18720
- LINDSEY, R. S., JR.**  
Pulse stretcher for narrow pulses  
[NASA-CASE-MSC-14130-1] c 33 N74-32711  
Random pulse generator  
[NASA-CASE-MSC-14131-1] c 33 N75-19515
- LINDSEY, W. C.**  
Transition tracking bit synchronization system  
[NASA-CASE-NPO-10844] c 07 N72-20140  
Data-aided carrier tracking loops  
[NASA-CASE-NPO-11282] c 10 N73-16205  
Coherent receiver employing nonlinear coherence  
detection for carrier tracking  
[NASA-CASE-NPO-11921-1] c 32 N74-30523
- LINDSEY, W. F.**  
Stereo photomicrography system  
[NASA-CASE-LAR-10176-1] c 14 N72-20380
- LINEBACK, L. D.**  
Thermal shock resistant hafnia ceramic material  
[NASA-CASE-LAR-10894-1] c 18 N73-14584
- LINFORD, R. M. F.**  
Flame detector operable in presence of proton  
radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410
- LING, A. C.**  
Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118
- LING, S. C.**  
Flux sensing device using a tubular core with toroidal  
gating coil and solenoidal output coil wound thereon  
Patent  
[NASA-CASE-XGS-01881] c 09 N70-40123
- LINGLE, J. T.**  
Frequency control network for a current feedback  
oscillator Patent  
[NASA-CASE-GSC-10041-1] c 10 N71-19418  
Static inverter Patent  
[NASA-CASE-XGS-05289] c 09 N71-19470
- LINLOR, W. I.**  
Optical system with reflective baffles  
[NASA-CASE-ARC-11502-1] c 74 N84-26400
- LIPANOVICH, M. I.**  
Medical subject monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757
- LIPKE, D. W.**  
Doppler frequency spread correction device for multiplex  
transmissions  
[NASA-CASE-XGS-02749] c 07 N69-39978
- LIPKIS, R. R.**  
Electromagnetic radiation energy arrangement  
[NASA-CASE-WOO-00428-1] c 32 N79-19186
- LIPOMA, P. C.**  
Television signal scan rate conversion system Patent  
[NASA-CASE-XMS-07168] c 07 N71-11300  
Burst synchronization detection system Patent  
[NASA-CASE-XMS-05605-1] c 10 N71-19468  
Data storage, image tube type  
[NASA-CASE-MSC-14053-1] c 60 N74-12888  
System for producing chroma signals  
[NASA-CASE-MSC-14683-1] c 74 N77-18893
- LIPPITT, M. W., JR.**  
Electrode for biological recording  
[NASA-CASE-XMS-02872] c 05 N69-21925  
Instrument for use in performing a controlled Valsalva  
maneuver Patent  
[NASA-CASE-XMS-01615] c 05 N70-41329
- LIPSHITZ, A.**  
Modified face seal for positive film stiffness  
[NASA-CASE-LEW-12989-1] c 37 N82-12442
- LISAGOR, W. B.**  
Controlled glass bead peening Patent  
[NASA-CASE-XLA-07390] c 15 N71-18616  
Fixture for environmental exposure of structural  
materials under compression load  
[NASA-CASE-LAR-12602-1] c 39 N83-32081
- LISLE, R. V.**  
Lightning current measuring systems  
[NASA-CASE-KSC-10807-1] c 33 N75-26246  
Automatic flowmeter calibration system  
[NASA-CASE-KSC-11076-1] c 34 N81-26402
- LISOVICZ, E. J.**  
High contrast cathode ray tube  
[NASA-CASE-ERC-10468] c 09 N72-20206
- LIST, W. F.**  
Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612  
Phototransistor imaging system  
[NASA-CASE-MFS-20809] c 23 N73-13660
- LISTER, J. L.**  
Thermally conductive polymers  
[NASA-CASE-GSC-11304-1] c 06 N72-21105
- LITANT, I.**  
Apparatus and method for separating a semiconductor  
wafer Patent  
[NASA-CASE-ERC-10138] c 26 N71-14354  
Method for detecting leaks in hermetically sealed  
containers Patent  
[NASA-CASE-ERC-10045] c 15 N71-24910
- LITCHFORD, G. B.**  
Altitude measuring system  
[NASA-CASE-ERC-10412-1] c 09 N73-12211
- LITTLE, B. D.**  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- LITTLE, R. E.**  
Method of making pressure tight seal for super alloy  
[NASA-CASE-LAR-10170-1] c 37 N74-11301
- LITTLEJOHN, D. P.**  
High power-high voltage waterload Patent  
[NASA-CASE-XNP-05381] c 09 N71-20842
- LIU, C. C.**  
Method and device for the detection of phenol and  
related compounds  
[NASA-CASE-LEW-12513-1] c 25 N79-22235
- LIU, F. F.**  
Respiratory analysis system and method  
[NASA-CASE-MSC-13436-1] c 05 N73-32015
- LIU, J. K.**  
Method of increasing minority carrier lifetime in silicon  
web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888
- LIU, K. Y.**  
Pipelined digital SAR azimuth correlator using hybrid  
FFT-transversal filter  
[NASA-CASE-NPO-15519-1] c 32 N84-34651
- LIVERMORE, S. F.**  
Lightning current detector  
[NASA-CASE-KSC-11057-1] c 33 N79-14305
- LLOYD, W. B.**  
Bearing and gimbal lock mechanism and spiral flex lead  
module Patent  
[NASA-CASE-GSC-10556-1] c 31 N71-26537
- LOCH, F. J.**  
Frequency modulation demodulator threshold extension  
device Patent  
[NASA-CASE-MSC-12165-1] c 07 N71-33696
- LOCKARD, M. L.**  
Leak detector Patent  
[NASA-CASE-LAR-10323-1] c 12 N71-17573
- LOCKMAN, C. S.**  
Method and apparatus for nondestructive testing of  
pressure vessels  
[NASA-CASE-NPO-12142-1] c 38 N76-28563
- LOCKWOOD, V. E.**  
Landing arrangement for aerial vehicles Patent  
[NASA-CASE-XLA-00142] c 02 N70-33286  
Landing arrangement for aerial vehicle Patent  
[NASA-CASE-XLA-00806] c 02 N70-34858  
Landing arrangement for aerospace vehicle Patent  
[NASA-CASE-XLA-00805] c 31 N70-38010
- LOFTIN, L. K., JR.**  
Wind tunnel airstream oscillating apparatus Patent  
[NASA-CASE-XLA-00112] c 11 N70-33287
- LOGAN, K. E.**  
Active lamp pulse driver circuit  
[NASA-CASE-GSC-12566-1] c 33 N83-34189
- LOGAN, W. R.**  
Method of preparing zinc orthotitanate pigment  
[NASA-CASE-MFS-23345-1] c 27 N77-30237
- LOH, G. M.**  
Medical subject monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757
- LOHR, J. J.**  
Variable stiffness polymeric damper  
[NASA-CASE-XAC-11225] c 14 N69-27486
- LOKERSON, D. C.**  
Voltage to frequency converter Patent  
[NASA-CASE-GSC-10022-1] c 10 N71-25882  
X-Y alphanumeric character generator for  
oscilloscopes  
[NASA-CASE-GSC-11582-1] c 33 N75-19517  
Speech analyzer  
[NASA-CASE-GSC-11898-1] c 32 N77-30309
- LOMBARDI, F.**  
Head for high speed spinner having a vacuum chuck  
[NASA-CASE-NPO-15227-1] c 37 N81-33482  
Hermetic seal for a shaft  
[NASA-CASE-NPO-15115-1] c 37 N82-24493
- LONBORG, J. O.**  
Attitude control for spacecraft Patent  
[NASA-CASE-XNP-02982] c 31 N70-41855
- LONG, E. R., JR.**  
Thermoluminescent aerosol analysis  
[NASA-CASE-LAR-12046-1] c 25 N78-15210
- LONG, H. R.**  
Precipitation detector Patent  
[NASA-CASE-XLA-02619] c 10 N71-26334
- LONG, M. J.**  
Interlocking wedge joint  
[NASA-CASE-LAR-12729-1] c 37 N82-26676
- LONG, W. C.**  
Technique for extending the frequency range of digital  
dividers  
[NASA-CASE-LAR-10730-1] c 33 N74-10223  
Non-destructive method for applying and removing  
instrumentation on helicopter rotor blades  
[NASA-CASE-LAR-11201-1] c 35 N78-24515
- LONGYEAR, W. D.**  
Omnidirectional acceleration device Patent  
[NASA-CASE-HQN-10780] c 14 N71-30265
- LOOK, G. F.**  
Foam generator Patent  
[NASA-CASE-XLA-00838] c 03 N70-36778
- LOOP, R. W.**  
Absolute focus lock for microscopes  
[NASA-CASE-LAR-10184] c 14 N72-22445
- LOOSE, J. D.**  
Steady state thermal radiometers  
[NASA-CASE-MFS-21108-1] c 34 N74-27861
- LOPEZ, A. E.**  
Three-axis finger tip controller for switches Patent  
[NASA-CASE-XAC-02405] c 09 N71-16089
- LORD, H. C., III**  
Analysis of hydrogen-deuterium mixtures  
[NASA-CASE-NPO-11322] c 06 N72-25146
- LORELL, K. R.**  
High temperature lens construction Patent  
[NASA-CASE-XNP-04111] c 14 N71-15622  
All sky pointing attitude control system  
[NASA-CASE-ARC-10716-1] c 35 N77-20399
- LOTHSCHUETZ, F. X.**  
Stretcher Patent  
[NASA-CASE-MSC-06589] c 05 N71-23159
- LOTT, D. R.**  
Method of fabricating a photovoltaic module of a  
substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550
- LOUGHEAD, A. G.**  
Linear differential pressure sensor Patent  
[NASA-CASE-XMF-01974] c 14 N71-22752
- LOUGHEAD, T. E.**  
Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303
- LOUNSBERRY, E. D.**  
Jet shoes  
[NASA-CASE-XLA-08491] c 05 N69-21380
- LOVALL, D. D.**  
Electric field measuring and display system  
[NASA-CASE-KSC-10731-1] c 33 N74-27862
- LOVELACE, A. M.**  
Control means for a solid state crossbar switch  
[NASA-CASE-NPO-15066-1] c 33 N82-29538
- LOVELL, J. S.**  
Portable breathing system  
[NASA-CASE-MSC-16182-1] c 54 N80-10799
- LOVELL, R. R.**  
Process for preparing liquid metal electrical contact  
device  
[NASA-CASE-LEW-11978-1] c 33 N77-26385
- LOVELOCK, J. E.**  
Atmospheric sampling devices  
[NASA-CASE-NPO-11373] c 13 N72-25323
- LOVINGER, D. N.**  
Voice operated controller Patent  
[NASA-CASE-XLA-04063] c 31 N71-33160
- LOWE, E. G.**  
Continuous turning slip ring assembly Patent  
[NASA-CASE-XMF-01049] c 15 N71-23049

- LOWELL, C. E.**  
Nical ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505  
Improved nickel base coating alloy  
[NASA-CASE-LEW-13834-1] c 26 N83-24639
- LOWEN, I. B.**  
Spacecraft attitude detection system by stellar reference Patent  
[NASA-CASE-XGS-03431] c 21 N71-15642  
Roll alignment detector  
[NASA-CASE-GSC-10514-1] c 14 N72-20379
- LOWERY, J. R.**  
Panel for selectively absorbing solar thermal energy and the method of producing said panel  
[NASA-CASE-MFS-22562-1] c 44 N76-14595
- LOWRY, J. G.**  
Jet aircraft configuration Patent  
[NASA-CASE-XLA-00087] c 02 N70-33332  
Variable-span aircraft Patent  
[NASA-CASE-XLA-00166] c 02 N70-34178
- LOY, C. A.**  
Tank construction for space vehicles Patent  
[NASA-CASE-XMF-01899] c 31 N70-41948
- LOYD, C.**  
System for maintaining a motor at a predetermined speed utilizing digital feedback means Patent  
[NASA-CASE-XMF-06892] c 09 N71-24805  
RC rate generator for slow speed measurement Patent  
[NASA-CASE-XMF-02966] c 10 N71-24863
- LUBOWITZ, H. R.**  
Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032  
Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125
- LUCAS, C. H.**  
Analog to digital converter  
[NASA-CASE-NPO-13385-1] c 33 N76-18345
- LUCERO, D. P.**  
Method for detecting hydrogen gas  
[NASA-CASE-XMF-03873] c 06 N69-39733
- LUCHT, R. A.**  
A technique for breaking ice in the path of a ship  
[NASA-CASE-LAR-10815-1] c 16 N72-22520
- LUCY, M. H.**  
Molded composite pyrogen igniter for rocket motors  
[NASA-CASE-LAR-12018-1] c 20 N78-24275
- LUDWIG, A. C.**  
Dual waveguide mode source having control means for adjusting the relative amplitude of two modes Patent  
[NASA-CASE-XNP-03134] c 07 N71-10676  
Singly-curved reflector for use in high-gain antennas  
[NASA-CASE-NPO-11361] c 07 N72-32169  
Dual frequency microwave reflex feed  
[NASA-CASE-NPO-13091-1] c 09 N73-12214  
Low loss dichroic plate  
[NASA-CASE-NPO-13171-1] c 32 N74-11000
- LUDWIG, L. P.**  
Foil seal  
[NASA-CASE-XLE-05130] c 15 N69-21362  
Foil seal Patent  
[NASA-CASE-XLE-05130-2] c 15 N71-19570  
Spiral groove seal  
[NASA-CASE-XLE-10326-2] c 15 N72-29488  
Spiral groove seal  
[NASA-CASE-LEW-10326-3] c 37 N74-10474  
Spiral groove seal  
[NASA-CASE-XLE-10326-4] c 37 N74-15125  
High speed, self-acting shaft seal  
[NASA-CASE-LEW-11274-1] c 37 N75-21631  
Fluid seal for rotating shafts  
[NASA-CASE-LEW-11676-1] c 37 N76-22541  
Counter pumping debris excluder and separator  
[NASA-CASE-LEW-11855-1] c 07 N78-25090  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-1] c 37 N79-18318  
Shaft seal assembly for high speed and high pressure applications  
[NASA-CASE-LEW-11873-1] c 37 N79-22475  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-2] c 37 N80-26658  
Circumferential shaft seal  
[NASA-CASE-LEW-12119-1] c 37 N80-28711  
Multiple plate hydrostatic viscous damper  
[NASA-CASE-LEW-12445-1] c 37 N81-22380  
Circumferential shaft seal  
[NASA-CASE-LEW-12119-2] c 37 N81-26447  
Composite seal for turbomachinery  
[NASA-CASE-LEW-12131-3] c 37 N82-19540
- LUEBBERS, S. S.**  
Thermionic tantalum emitter doped with oxygen Patent Application  
[NASA-CASE-NPO-11138] c 03 N70-34646  
Thermionic diode switch Patent  
[NASA-CASE-NPO-10404] c 03 N71-12255
- LUEBERING, G. W.**  
Blade retainer assembly  
[NASA-CASE-LEW-12608-1] c 07 N77-27116
- LUKENS, F. E.**  
Measurement amplifier  
[NASA-CASE-MFS-25868-1] c 33 N84-32680
- LUM, H.**  
Sampling video compression system  
[NASA-CASE-ARC-10984-1] c 32 N77-24328
- LUNCE, R. S.**  
Medical subject monitoring systems  
[NASA-CASE-MS-14160-1] c 52 N76-14757
- LUND, G. F.**  
Pocket ECG electrode  
[NASA-CASE-ARC-11258-1] c 52 N80-33081  
Subcutaneous electrode structure  
[NASA-CASE-ARC-11117-1] c 52 N81-14612
- LUND, W. C.**  
Heated porous plug microthruster  
[NASA-CASE-GSC-10640-1] c 28 N72-18768
- LUNDQUIST, J. R.**  
Preparation of high purity copper fluoride  
[NASA-CASE-LEW-10794-1] c 06 N72-17093
- LUPTON, M. W.**  
Micronized coal burner facility  
[NASA-CASE-ARC-113426-1] c 25 N84-16276
- LUSHBAUGH, W. A.**  
Data compression system  
[NASA-CASE-XNP-09785] c 08 N69-21928  
Data compressor Patent  
[NASA-CASE-XNP-04067] c 08 N71-22707  
Error correcting method and apparatus Patent  
[NASA-CASE-XNP-02748] c 08 N71-22749  
Comparator for the comparison of two binary numbers Patent  
[NASA-CASE-XNP-04819] c 08 N71-23295  
Parallel generation of the check bits of a PN sequence Patent  
[NASA-CASE-XNP-04623] c 10 N71-26103  
Versatile arithmetic unit for high speed sequential decoder  
[NASA-CASE-NPO-11371] c 08 N73-12177
- LUTES, G. F.**  
Precise RF timing signal distribution to remote stations  
[NASA-CASE-NPO-14749-1] c 32 N81-14186  
Low loss splicing method for single-mode optical fiber  
[NASA-CASE-NPO-16294-1] c 74 N84-33178
- LUTES, G. F., JR.**  
Broadband stable power multiplier Patent  
[NASA-CASE-XNP-10854] c 10 N71-26331  
Cascaded complementary pair broadband transistor amplifiers Patent  
[NASA-CASE-NPO-10003] c 10 N71-26415  
Low phase noise digital frequency divider  
[NASA-CASE-NPO-11569] c 10 N73-26229  
Fiber optic transmission line stabilization apparatus and method  
[NASA-CASE-NPO-15036-1] c 74 N82-19029
- LUTUS, P.**  
Direct current ballast circuit for metal halide lamp  
[NASA-CASE-MS-18407-1] c 33 N82-24427
- LUTZ, E. B.**  
Operational integrator Patent  
[NASA-CASE-NPO-10230] c 09 N71-12520
- LYLAND, J. W.**  
Versatile arithmetic unit for high speed sequential decoder  
[NASA-CASE-NPO-11371] c 08 N73-12177
- LYNCH, E. J.**  
Three-axis adjustable loading structure  
[NASA-CASE-FRC-10051-1] c 35 N74-13129
- LYNCH, T. L.**  
Pulsed excitation voltage circuit for transducers  
[NASA-CASE-FRC-10036] c 09 N72-22200
- LYON, W. E.**  
Optical range finder having nonoverlapping complete images  
[NASA-CASE-MS-12105-1] c 14 N72-21409
- LYONS, J. C.**  
Integrated photo-responsive metal oxide semiconductor circuit  
[NASA-CASE-GSC-12782-1] c 33 N83-13360
- MA, L. N.**  
Digital numerically controlled oscillator  
[NASA-CASE-MS-16747-1] c 33 N81-17348
- MACCONNELL, J. W.**  
Ultra stable frequency distribution system  
[NASA-CASE-NPO-13836-1] c 32 N78-15323
- MACCONOCHIE, I. O.**  
Excessive temperature warning system Patent  
[NASA-CASE-XLA-01928] c 14 N71-15620
- Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311  
Shell tie thermal protection system  
[NASA-CASE-LAR-12862-1] c 27 N84-27888
- MACDAVID, K. S.**  
Thermocouple installation  
[NASA-CASE-NPO-13540-1] c 35 N77-14409
- MACDORAN, P. F.**  
System for real-time crustal deformation monitoring  
[NASA-CASE-NPO-14124-1] c 46 N80-14603  
Interferometric locating system  
[NASA-CASE-NPO-14173-1] c 04 N80-32359  
Method and apparatus for calibrating the ionosphere and application to surveillance of geophysical events  
[NASA-CASE-NPO-15430-1] c 46 N82-26890
- MACFADDEN, J. A.**  
Rotating mandrel for assembly of inflatable devices Patent  
[NASA-CASE-XLA-04143] c 15 N71-17687
- MACGLASHAN, W. F.**  
Power control for hot gas engines  
[NASA-CASE-NPO-14220-1] c 37 N81-14318
- MACGLASHAN, W. F., JR.**  
Belleville spring assembly with elastic guides  
[NASA-CASE-XNP-09452] c 15 N69-27504  
High pressure four-way valve Patent  
[NASA-CASE-XNP-00214] c 15 N70-36908  
Multiple Belleville spring assembly Patent  
[NASA-CASE-XNP-00840] c 15 N70-38225  
Pressure regulating system Patent  
[NASA-CASE-XNP-00450] c 15 N70-38603  
Ejection unit Patent  
[NASA-CASE-XNP-00676] c 15 N70-38996  
Reinforcing means for diaphragms Patent  
[NASA-CASE-XNP-01962] c 32 N70-41370  
High pressure filter Patent  
[NASA-CASE-XNP-00732] c 28 N70-41447  
Antiflutter ball check valve Patent  
[NASA-CASE-XNP-01152] c 15 N70-41811  
High pressure regulator valve Patent  
[NASA-CASE-NPO-00710] c 15 N71-10778  
Filler valve Patent  
[NASA-CASE-XNP-01747] c 15 N71-23024
- MACKAY, C. A.**  
Quick disconnect latch and handle combination Patent  
[NASA-CASE-MFS-11132] c 15 N71-17649
- MACLEOD, N. H.**  
Bacterial contamination monitor  
[NASA-CASE-GSC-10879-1] c 14 N72-25413
- MACVEIGH, G. E.**  
Analog spatial maneuver computer  
[NASA-CASE-GSC-10880-1] c 08 N72-11172
- MADDOX, J. W.**  
Air bearing  
[NASA-CASE-WLP-10002] c 15 N72-17451
- MADEY, J. M.**  
Satellite appendage tie down cord Patent  
[NASA-CASE-XGS-02554] c 31 N71-21064  
Redundant actuating mechanism Patent  
[NASA-CASE-XGS-08718] c 15 N71-24600  
Rotary electric device  
[NASA-CASE-GSC-12138-1] c 33 N79-20314
- MADISON, I. B.**  
Aerodynamic spike nozzle Patent  
[NASA-CASE-XGS-01143] c 31 N71-15647
- MADSEN, B.**  
Apparatus and method for skin packaging articles  
[NASA-CASE-MFS-20855] c 15 N73-27405
- MAESTRELLO, L.**  
Apparatus and method for jet noise suppression  
[NASA-CASE-LAR-11803-2] c 71 N84-14873
- MAHAN, J. C.**  
Device for preventing high voltage arcing in electron beam welding Patent  
[NASA-CASE-XMF-08522] c 15 N71-19486
- MAIDEN, D. L.**  
Flow velocity and directional instrument  
[NASA-CASE-LAR-10855-1] c 14 N73-13415  
Two dimensional wedge/translating shroud nozzle  
[NASA-CASE-LAR-11919-1] c 07 N78-27121
- MAILLOUX, R. J.**  
Array phasing device Patent  
[NASA-CASE-ERC-10046] c 10 N71-18722  
Circularly polarized antenna  
[NASA-CASE-ERC-10214] c 09 N72-31235  
Phase control circuits using frequency multiplications for phased array antennas  
[NASA-CASE-ERC-10285] c 10 N73-16206
- MAJOR, C. J.**  
Mixture separation cell Patent  
[NASA-CASE-XMS-02952] c 18 N71-20742
- MALLING, L. R.**  
Digital television camera control system Patent  
[NASA-CASE-XNP-01472] c 14 N70-41807

- Reduced bandwidth video communication system utilizing sampling techniques Patent  
[NASA-CASE-XNP-02791] c 07 N71-23026
- MALMBERG, J. H.**  
Waveform simulator Patent  
[NASA-CASE-NPO-10251] c 10 N71-27365
- MALONE, L. B.**  
Emergency lunar communications system  
[NASA-CASE-MFS-21042] c 07 N72-25171
- MANATT, S. L.**  
Audio frequency marker system  
[NASA-CASE-NPO-11147] c 14 N72-27408
- MANDEL, C. H.**  
Azimuth laying system Patent  
[NASA-CASE-XMF-01869] c 21 N71-23289
- MANDELKORN, J.**  
Method of making a silicon semiconductor device Patent  
[NASA-CASE-XLE-02792] c 26 N71-10607  
Method of making electrical contact on silicon solar cell and resultant product Patent  
[NASA-CASE-XLE-04787] c 03 N71-20492  
Gd or Sm doped silicon semiconductor composition Patent  
[NASA-CASE-XLE-10715] c 26 N71-23292  
Silicon solar cell with cover glass bonded to cell by metal pattern Patent  
[NASA-CASE-XLE-08569] c 03 N71-23449  
Semiconductor material and method of making same Patent  
[NASA-CASE-XLE-02798] c 26 N71-23654  
Method of attaching a cover glass to a silicon solar cell Patent  
[NASA-CASE-XLE-08569-2] c 03 N71-24681
- MANDELL, A.**  
Condition sensor system and method  
[NASA-CASE-MSC-14805-1] c 54 N78-32720
- MANFREDI, L.**  
Liquid hydrogen polygeneration system and process  
[NASA-CASE-KSC-11304-1] c 28 N84-29017
- MANGES, D. R.**  
Rotatable electric cable connecting system  
[NASA-CASE-GSC-12899-1] c 33 N84-29085
- MANGION, C.**  
System for preconditioning a combustible vapor  
[NASA-CASE-NPO-12072] c 28 N72-22772
- MANGOLD, D. W.**  
Medical subject monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757
- MANN, C. W.**  
Rotary target V-block  
[NASA-CASE-LAR-12007-3] c 35 N84-16523
- MANH, W. A.**  
Compact artificial hand  
[NASA-CASE-NPO-13908-1] c 54 N79-24852
- MANNING, C. R.**  
Thermal shock and erosion resistant tantalum carbide ceramic material  
[NASA-CASE-LAR-11902-1] c 27 N78-17206
- MANNING, C. R., JR.**  
Controlled glass bead peening Patent  
[NASA-CASE-XLA-07390] c 15 N71-18616  
Thermal shock resistant hafnia ceramic material  
[NASA-CASE-LAR-10894-1] c 18 N73-14584
- MANOLI, R.**  
Aircraft-mounted crash-activated transmitter device  
[NASA-CASE-MFS-16809-3] c 03 N78-32140
- MANSOUR, M. M.**  
Servo-controlled intravital microscope system  
[NASA-CASE-NPO-13214-1] c 35 N75-25123
- MANTLER, R. L.**  
Rocket propellant injector Patent  
[NASA-CASE-XLE-00103] c 28 N70-33241
- MANUS, E. A.**  
Active microwave irises and windows  
[NASA-CASE-LAR-10513-1] c 07 N72-25170  
Thin film microwave iris  
[NASA-CASE-LAR-10511-1] c 09 N72-29172  
Logarithmic circuit with wide dynamic range  
[NASA-CASE-GSC-12145-1] c 33 N78-32339
- MANZO, M. A.**  
Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-1] c 44 N81-27615  
Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188  
Polyvinyl alcohol battery separator containing inert filler  
[NASA-CASE-LEW-13556-2] c 44 N83-29805
- MAPLE, W. E.**  
Analytical test apparatus and method for determining oxide content of alkali metal Patent  
[NASA-CASE-XLE-01897] c 06 N71-23527
- MAPLES, H. E.**  
Light intensity modulator controller Patent  
[NASA-CASE-XMS-04300] c 09 N71-18479
- MARAK, R. J.**  
Life raft stabilizer  
[NASA-CASE-MSC-12393-1] c 02 N73-26006
- MARCELL, G. V.**  
Method and apparatus for preparing multiconductor cable with flat conductors  
[NASA-CASE-MFS-10948-1] c 31 N79-21226  
Edge coating of flat wires  
[NASA-CASE-XMF-05757-1] c 31 N79-21227
- MARCUM, D. C., JR.**  
Hypersonic airbreathing missile  
[NASA-CASE-LAR-12264-1] c 15 N78-32168
- MARCUS, B. D.**  
Flat-plate heat pipe  
[NASA-CASE-GSC-11898-1] c 34 N77-32413
- MARCUS, H. L.**  
Laser extensometer  
[NASA-CASE-MFS-19259-1] c 38 N78-14380
- MAREK, C. J.**  
Fuel combustor  
[NASA-CASE-LEW-12137-1] c 25 N78-10224  
Supercritical fuel injection system  
[NASA-CASE-LEW-12990-1] c 07 N81-29129
- MARGALIT, S.**  
Arrangement for damping the resonance in a laser diode  
[NASA-CASE-NPO-15980-1] c 38 N82-28618
- MARGOLIS, J. S.**  
Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510  
Stark cell optoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015  
Coherently pulsed laser source  
[NASA-CASE-NPO-15111-1] c 38 N82-29589  
Correlation spectrometer having high resolution and multiplexing capability  
[NASA-CASE-NPO-15558-1] c 35 N84-34705
- MARGOSIAN, P. M.**  
Electrostatic thruster with improved insulators Patent  
[NASA-CASE-XLE-01902] c 28 N71-10574  
Single grid accelerator for an ion thruster  
[NASA-CASE-XLE-10453-2] c 28 N73-27699
- MARGRAF, H. J.**  
High pressure four-way valve Patent  
[NASA-CASE-XNP-00214] c 15 N70-36908
- MARINOS, C.**  
Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425
- MARKLEY, R. A.**  
Self-adjusting multisegment, deployable, natural circulation radiator Patent  
[NASA-CASE-XHQ-03873] c 33 N71-29046
- MARLOW, M. O.**  
Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28729
- MARLOW, R. E.**  
System for enhancing tool-exchange capabilities of a portable wrench  
[NASA-CASE-MFS-22283-1] c 37 N75-33395  
Remotely operable articulated manipulator  
[NASA-CASE-MFS-22707-1] c 37 N78-15457
- MAROPIS, N.**  
Methods and apparatus employing vibratory energy for wrenching Patent  
[NASA-CASE-MFS-20588] c 15 N71-17686
- MARRKLE, R. A.**  
Process for preparation of dianilinosilanes Patent  
[NASA-CASE-XMF-06409] c 06 N71-23230
- MARRONI, M. A., JR.**  
Pressure garment joint Patent  
[NASA-CASE-XMS-09636] c 05 N71-12344  
Omnidirectional joint Patent  
[NASA-CASE-XMS-09635] c 05 N71-24623  
Foreshortened convolute section for a pressurized suit Patent  
[NASA-CASE-XMS-09637-1] c 05 N71-24730  
Method of forming a root cord restrained convolute section  
[NASA-CASE-MSC-12398] c 05 N72-20098  
Restraint torso for a pressurized suit  
[NASA-CASE-MSC-12397-1] c 05 N72-25119
- MARSH, H. E., JR.**  
Trifunctional alcohol  
[NASA-CASE-NPO-10714] c 08 N69-31244  
Novel polycarboxylic prepolymeric materials and polymers thereof Patent  
[NASA-CASE-NPO-10596] c 06 N71-25929  
Aldehyde-containing urea-absorbing polysaccharides  
[NASA-CASE-NPO-13620-1] c 27 N77-30236  
Oil and fat absorbing polymers  
[NASA-CASE-NPO-11609-2] c 27 N77-31308  
Solid propellant motor  
[NASA-CASE-NPO-11458A] c 20 N78-32179
- MARSH, H. W.**  
Fluid pressure balanced seal  
[NASA-CASE-XGS-01286-1] c 37 N79-33469
- MARSHALL, F. E.**  
Imaging X-ray spectrometer  
[NASA-CASE-GSC-12682-1] c 35 N84-33765
- MARSHALL, J. H.**  
Baseline stabilization system for ionization detector Patent  
[NASA-CASE-XNP-03128] c 10 N70-41991
- MARSHALL, T. N., JR.**  
Nuclear mass flowmeter  
[NASA-CASE-MFS-20485] c 14 N72-11365
- MARSHALL, W. R.**  
Three stage rocket vehicle with parallel staging  
[NASA-CASE-MFS-25878-1] c 18 N84-27787
- MARSIK, S. J.**  
Selective nickel deposition  
[NASA-CASE-LEW-10965-1] c 15 N72-25452  
Production of pure metals  
[NASA-CASE-LEW-10906-1] c 25 N74-30502  
Process for making anhydrous metal halides  
[NASA-CASE-LEW-11860-1] c 37 N78-18458
- MARTEL, R. J.**  
Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860
- MARTIN, G. L.**  
Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092
- MARTIN, J. A.**  
Orbiter/launch system  
[NASA-CASE-LAR-12250-1] c 14 N81-26161
- MARTIN, J. W.**  
Dynamic Doppler simulator Patent  
[NASA-CASE-XMS-05454-1] c 07 N71-12391
- MARTIN, N. C.**  
Segmented back-up bar Patent  
[NASA-CASE-XMF-00840] c 15 N70-39924  
Portable alignment tool Patent  
[NASA-CASE-XMF-01452] c 15 N70-41371
- MARTIN, R. B.**  
Color perception tester  
[NASA-CASE-KSC-10278] c 05 N72-16015
- MARTIN, S. C.**  
Correlation type phase detector  
[NASA-CASE-GSC-11744-1] c 33 N75-26243
- MARTIN, W. L.**  
Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680  
Method of resolving clock synchronization error and means therefor Patent  
[NASA-CASE-XNP-08875] c 10 N71-23099  
Communications link for computers  
[NASA-CASE-NPO-11181] c 08 N72-25207  
Binary coded sequential acquisition ranging system  
[NASA-CASE-NPO-11194] c 08 N72-25209  
Digital video display system using cathode ray tube  
[NASA-CASE-NPO-11342] c 09 N72-25248  
Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267
- MARTINAGE, L. H.**  
Power supply Patent  
[NASA-CASE-XMS-02159] c 10 N71-22961
- MARTINECK, H. G.**  
Electrical connector for flat cables Patent  
[NASA-CASE-XMF-00324] c 09 N70-34596  
Printed cable connector Patent  
[NASA-CASE-XMF-00369] c 09 N70-36494  
Method of making a molded connector Patent  
[NASA-CASE-XMF-03498] c 15 N71-15986  
Electrical connector  
[NASA-CASE-MFS-20757] c 09 N72-28225
- MARTONCHIK, J. V.**  
Correlation spectrometer having high resolution and multiplexing capability  
[NASA-CASE-NPO-15558-1] c 35 N84-34705
- MARTUCCI, V. J.**  
Tuning arrangement for an electron discharge device or the like Patent  
[NASA-CASE-XNP-09771] c 09 N71-24841
- MARTZ, E. L.**  
Externally pressurized fluid bearing Patent  
[NASA-CASE-XMF-00515] c 15 N70-34684
- MARVIN, I. E.**  
Integrated control system for a gas turbine engine  
[NASA-CASE-LEW-12594-2] c 07 N81-19116
- MARZEK, R. A.**  
Tool for use in lifting pin supported objects  
[NASA-CASE-NPO-13157-1] c 37 N74-32918
- MASCY, A. C.**  
Deep space monitor communication satellite system Patent  
[NASA-CASE-XAC-06029-1] c 31 N71-24813

- MASEK, T. D.**  
Electron bombardment ion engine Patent  
[NASA-CASE-XNP-04124] c 28 N71-21822  
Feed system for an ion thruster  
[NASA-CASE-NPO-10737] c 28 N72-11709
- MASERJIAN, J.**  
Temperature sensitive capacitor device  
[NASA-CASE-XNP-09750] c 14 N69-39937  
Thin film capacitive bolometer and temperature sensor Patent  
[NASA-CASE-NPO-10607] c 09 N71-27232  
Thin film temperature sensor and method of making same  
[NASA-CASE-NPO-11775] c 26 N72-28761  
Use of thin film light detector  
[NASA-CASE-NPO-11432-2] c 35 N74-15090  
Deep trap, laser activated image converting system  
[NASA-CASE-NPO-13131-1] c 36 N75-19652  
Stored charge transistor  
[NASA-CASE-NPO-11156-2] c 33 N75-31331  
Method and apparatus for measurement of trap density and energy distribution in dielectric films  
[NASA-CASE-NPO-13443-1] c 78 N76-20994  
Chemical vapor deposition reactor  
[NASA-CASE-NPO-13650-1] c 25 N79-28253  
Induced junction solar cell and method of fabrication  
[NASA-CASE-NPO-13788-1] c 44 N80-29835  
Laser activated MTOS microwave device  
[NASA-CASE-NPO-18112-1] c 36 N84-12483
- MASLOWSKI, E. A.**  
Method of making an insulation foil  
[NASA-CASE-LEW-11484-1] c 24 N75-33181
- MASON, J. W.**  
Microcomputerized electric field meter diagnostic and calibration system  
[NASA-CASE-KSC-11035-1] c 35 N78-28411
- MASON, R. J.**  
Collapsible reflector Patent  
[NASA-CASE-XMS-03454] c 09 N71-20658
- MASON, R. M.**  
Radial module space station Patent  
[NASA-CASE-XMS-01906] c 31 N70-41373
- MASSEY, D. L.**  
Heat reflecting field stop  
[NASA-CASE-LAR-12443-1] c 74 N82-19030
- MASSEY, W. A.**  
Heat reflecting field stop  
[NASA-CASE-LAR-12443-1] c 74 N82-19030
- MASSUCCO, A. A.**  
Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405  
Flame retardant spandex type polyurethanes  
[NASA-CASE-MSC-14331-2] c 27 N78-17213  
Process for spinning flame retardant elastomeric compositions  
[NASA-CASE-MSC-14331-3] c 27 N78-32262
- MATEER, G. C.**  
Flow separation detector  
[NASA-CASE-ARC-11046-1] c 35 N78-14364
- MATHENEY, J. L.**  
A dc to dc converter  
[NASA-CASE-MFS-25430-1] c 33 N84-16453
- MATHUR, F. P.**  
Program for computer aided reliability estimation  
[NASA-CASE-NPO-13086-1] c 15 N73-12495
- MATSHIRO, D. S.**  
Shoulder harness and lap belt restraint system  
[NASA-CASE-ARC-10519-2] c 05 N75-25915
- MATSUMOTO, Y.**  
Sampling video compression system  
[NASA-CASE-ARC-10984-1] c 32 N77-24328
- MATTAUCH, R. J.**  
Infrared detectors  
[NASA-CASE-LAR-10728-1] c 14 N73-12445  
Submillimeter wave Schottky barrier diode with low series resistance and low noise  
[NASA-CASE-NPO-15935-1] c 33 N83-12334  
Thin wire pointing method  
[NASA-CASE-NPO-15789-1] c 31 N83-19947  
Controlled in situ etch-back  
[NASA-CASE-NPO-15625-1] c 76 N83-20789
- MATTHEWS, F. R., JR.**  
Lightweight, variable solidity knitted parachute fabric  
[NASA-CASE-LAR-10776-1] c 02 N74-10034
- MATZEN, W. J.**  
Apparatus for measuring semiconductor device resistance  
[NASA-CASE-NPO-14424-1] c 33 N80-32650
- MAULDIN, D. G.**  
Contourograph system for monitoring electrocardiograms  
[NASA-CASE-MSC-13407-1] c 10 N72-20225
- MAXWELL, H. G.**  
Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement  
[NASA-CASE-NPO-13764-1] c 27 N78-17215
- MAXWELL, M. S.**  
Spacecraft attitude detection system by stellar reference Patent  
[NASA-CASE-XGS-03431] c 21 N71-15642  
Programmable telemetry system Patent  
[NASA-CASE-GSC-10131-1] c 07 N71-24624  
Plural beam antenna  
[NASA-CASE-GSC-11013-1] c 09 N73-19234
- MAXWELL, M. W.**  
Helical coaxial resonator RF filter  
[NASA-CASE-XGS-02816] c 07 N69-24323
- MAXWELL, R. F., JR.**  
Electronic background suppression method and apparatus for a field scanning sensor  
[NASA-CASE-XGS-05211] c 07 N69-39980
- MAXWELL, W. A.**  
Process of casting heavy slips Patent  
[NASA-CASE-XLE-00106] c 15 N71-16076
- MAY, C. E.**  
Selective nickel deposition  
[NASA-CASE-LEW-10965-1] c 15 N72-25452  
Production of pure metals  
[NASA-CASE-LEW-10906-1] c 25 N74-30502  
Process for making anhydrous metal halides  
[NASA-CASE-LEW-11860-1] c 37 N76-18458  
Method of cross-linking polyvinyl alcohol and other water soluble resins  
[NASA-CASE-LEW-13103-1] c 27 N80-32516
- MAYALL, S. D.**  
Frictionless universal joint Patent  
[NASA-CASE-NPO-10646] c 15 N71-28467
- MAYER, L. A.**  
Chelate-modified polymers for atmospheric gas chromatography  
[NASA-CASE-ARC-11154-1] c 25 N80-23383  
Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118
- MAYNARD, O. E.**  
Radial module space station Patent  
[NASA-CASE-XMS-01906] c 31 N70-41373
- MAYNE, R. C.**  
Shock absorbing mount for electrical components  
[NASA-CASE-NPO-13253-1] c 37 N75-18573
- MAYO, E. E.**  
Hypersonic reentry vehicle Patent  
[NASA-CASE-XMS-04142] c 31 N70-41631
- MAYO, J. W.**  
Connector - Electrical  
[NASA-CASE-XLA-01288] c 09 N69-21470  
Tubular coupling having frangible connecting means  
[NASA-CASE-XLA-02854] c 15 N69-27490  
Missile stage separation indicator and stage initiator Patent  
[NASA-CASE-XLA-00791] c 03 N70-39930  
Detector panels-micrometeoroid impact Patent  
[NASA-CASE-XLA-05906] c 31 N71-16221
- MAYO, R. F.**  
Electric-arc heater Patent  
[NASA-CASE-XLA-00330] c 33 N70-34540
- MAZARIS, G. A.**  
Application of semiconductor diffusants to solar cells by screen printing  
[NASA-CASE-LEW-12775-1] c 44 N79-11468  
Screen printed interdigitated back contact solar cell  
[NASA-CASE-LEW-13414-1] c 44 N83-20374
- MAZER, L.**  
Analog-to-digital conversion system Patent  
[NASA-CASE-XAC-00404] c 08 N70-40125
- MAZIQUE, J. C.**  
Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875
- MAZUR, J. T.**  
Telescoping columns  
[NASA-CASE-LAR-12195-1] c 31 N81-27324
- MCAFFEE, D. F.**  
Bi-polar phase detector and corrector for split phase PCM data signals Patent  
[NASA-CASE-XGS-01590] c 07 N71-12392  
Radio frequency coaxial high pass filter Patent  
[NASA-CASE-XGS-01418] c 09 N71-23573
- MCALEXANDER, B. T.**  
Laser head for simultaneous optical pumping of several dye lasers  
[NASA-CASE-LAR-11341-1] c 36 N75-19655
- MCBRAYER, R. O.**  
Soft frame adjustable eyeglasses Patent  
[NASA-CASE-XMS-06064] c 05 N71-23096
- MCBRYAR**  
Ion-exchange membrane with platinum electrode assembly Patent  
[NASA-CASE-XMS-02063] c 03 N71-29044
- MCBRYAR, H.**  
Reconstituted asbestos matrix  
[NASA-CASE-MSC-12568-1] c 24 N76-14204
- MCCAIG, J. C.**  
Electric arc welding Patent  
[NASA-CASE-XMF-00392] c 15 N70-34814
- MCCALLUM, J.**  
Porus electrode comprising a bonded stack of pieces of corrugated metal foil  
[NASA-CASE-GSC-11368-1] c 09 N73-32108
- MCCAMPBELL, W. M.**  
Electric arc welding Patent  
[NASA-CASE-XMF-00392] c 15 N70-34814  
Weld control system using thermocouple wire Patent  
[NASA-CASE-MFS-06074] c 15 N71-20393  
RC rate generator for slow speed measurement Patent  
[NASA-CASE-XMF-02966] c 10 N71-24863  
A dc motor speed control system Patent  
[NASA-CASE-MFS-14610] c 09 N71-28886
- MCCANDLESS, B., II**  
Connection system  
[NASA-CASE-MSC-20319-1] c 37 N82-31689
- MCCANDLESS, L. C.**  
Method of making reinforced composite structure  
[NASA-CASE-LEW-12619-1] c 24 N77-19171
- MCCANN, D. H.**  
Phototransistor  
[NASA-CASE-MFS-20407] c 09 N73-19235  
Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403
- MCCANN, R. J.**  
Device for handling heavy loads  
[NASA-CASE-XNP-04969] c 11 N69-27466
- MCCARTHY, D. M.**  
Automatic level control circuit  
[NASA-CASE-KSC-11170-1] c 33 N83-36356
- MCCARTY, J. L.**  
Lunar penetrometer Patent  
[NASA-CASE-XLA-00834] c 14 N71-22765
- MCCAUL, P. F.**  
Sidereal frequency generator Patent  
[NASA-CASE-XGS-02610] c 14 N71-23174
- MCCHESENEY, J. F., JR.**  
High voltage distributor  
[NASA-CASE-XSC-11849-1] c 33 N76-16332
- MCCHESENEY, J. R.**  
Modulator for tone and binary signals  
[NASA-CASE-GSC-11743-1] c 32 N75-24981
- MCCLEESE, D. J.**  
Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510
- MCCLENAHAN, J. O.**  
High speed shutter  
[NASA-CASE-ARC-10516-1] c 70 N74-21300  
Photomultiplier circuit including means for rapidly reducing the sensitivity thereof  
[NASA-CASE-ARC-10593-1] c 33 N74-27682
- MCCLUNEY, W. R.**  
The 2 deg/90 deg laboratory scattering photometer  
[NASA-CASE-GSC-12088-1] c 74 N78-13874
- MCCLUNG, C. E.**  
Antenna grout replacement system  
[NASA-CASE-NPO-15202-1] c 27 N83-34043
- MCCLURE, J. C.**  
Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown  
[NASA-CASE-MFS-23816-1] c 26 N80-23419
- MCCLURE, S. R.**  
Method and apparatus for holding two separate metal pieces together for welding  
[NASA-CASE-GSC-12318-1] c 37 N80-23655
- MCCONAUGHEY, R. T.**  
Star scanner  
[NASA-CASE-GSC-11569-1] c 89 N74-30886
- MCCONNELL, J. C.**  
Method of plating copper on aluminum Patent  
[NASA-CASE-XLA-08966-1] c 17 N71-25903
- MCCORMACK, W.**  
Single action separation mechanism Patent  
[NASA-CASE-XLA-00188] c 15 N71-22874
- MCCORMICK, C. T., JR.**  
Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244
- MCCRAW, D. L.**  
Emergency escape system Patent  
[NASA-CASE-MSC-12086-1] c 05 N71-12345
- MCCREA, F. E.**  
Indexing microwave switch Patent  
[NASA-CASE-XNP-06507] c 09 N71-23548



- Support assembly for cryogenically coolable low-noise choke waveguide  
[NASA-CASE-NPO-14253-1] c 32 N80-32605
- MCCREARY, R. A.**  
Parallel motion suspension device Patent  
[NASA-CASE-XNP-01567] c 15 N70-41310
- MCCREIGHT, L. R.**  
Electrophoretic sample insertion  
[NASA-CASE-MFS-21395-1] c 25 N74-26948  
Apparatus for conducting flow electrophoresis in the substantial absence of gravity  
[NASA-CASE-MFS-21394-1] c 34 N74-27744
- MCCUSKER, T. J.**  
Foldable solar concentrator Patent  
[NASA-CASE-XLA-04622] c 03 N70-41580
- MCDANIELS, D. L.**  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288  
Method of making fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-00228] c 17 N70-38490
- MCDARIS, R. A.**  
Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067
- MCDONALD, L. S.**  
Specific wavelength colorimeter  
[NASA-CASE-MSC-14081-1] c 35 N74-27860
- MCDONALD, D. K.**  
Synchronous counter Patent  
[NASA-CASE-XGS-02440] c 08 N71-19432
- MCDONALD, F. R.**  
Laser coolant and ultraviolet filter  
[NASA-CASE-MFS-20180] c 16 N72-12440
- MCDONALD, G. E.**  
Nuclear fuel elements  
[NASA-CASE-XLE-00209] c 22 N73-32528  
Selective coating for solar panels  
[NASA-CASE-LEW-12159-1] c 44 N78-19599  
Method for depositing an oxide coating  
[NASA-CASE-LEW-13131-1] c 44 N83-10494  
Method of forming oxide coatings  
[NASA-CASE-LEW-13132-1] c 27 N83-29388
- MCDONALD, R. T.**  
Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26548  
Respiration monitor  
[NASA-CASE-FRC-10012] c 14 N72-17329
- MCDONALD, A. R.**  
Force-balanced, throttle valve Patent  
[NASA-CASE-NPO-10808] c 15 N71-27432  
Quick disconnect coupling  
[NASA-CASE-NPO-11202] c 15 N72-25450  
Rotary actuator  
[NASA-CASE-NPO-10680] c 31 N73-14855  
Disconnect unit  
[NASA-CASE-NPO-11330] c 33 N73-26958  
Zero torque gear head wrench  
[NASA-CASE-NPO-13059-1] c 37 N78-20480  
Phase-angle controller for Stirling engines  
[NASA-CASE-NPO-14388-1] c 37 N81-17432  
Hot gas engine with dual crankshafts  
[NASA-CASE-NPO-14221-1] c 37 N81-25370  
Solar energy modulator  
[NASA-CASE-NPO-15388-1] c 44 N84-28203
- MCKERLEAN, E. A.**  
Bonding method in the manufacture of continuous regression rate sensor devices  
[NASA-CASE-LAR-10337-1] c 24 N75-30260
- MCFADIN, L. W.**  
Platinum resistance thermometer circuit  
[NASA-CASE-MSC-12327-1] c 35 N77-27368
- MCGANNON, W. J.**  
Ophthalmic method and apparatus  
[NASA-CASE-LEW-11669-1] c 05 N73-27062  
Ophthalmic liquifraction pump  
[NASA-CASE-LEW-12051-1] c 52 N75-33840  
Intra-ocular pressure normalization technique and equipment  
[NASA-CASE-LEW-12723-1] c 52 N80-18890
- MCGHEE, J. R.**  
Frangible tube energy dissipation Patent  
[NASA-CASE-XLA-00754] c 15 N70-34850  
Omnidirectional multiple impact landing system Patent  
[NASA-CASE-XLA-09881] c 31 N71-16085
- MCGINNIS, H. D.**  
Suspension system for a wheel rolling on a flat track  
[NASA-CASE-NPO-14395-1] c 37 N82-21587
- MCGOUGH, J. T.**  
Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067
- MCHAFFIE, D. J.**  
Extensible cable support Patent  
[NASA-CASE-XMF-07587] c 15 N71-18701
- MCHATTON, A. D.**  
Canister closing device Patent  
[NASA-CASE-XLA-01448] c 15 N71-21528  
Traveling sealer for contoured table  
[NASA-CASE-XLA-01494] c 15 N71-24184  
Amplifying ribbon extensometer  
[NASA-CASE-LAR-11825-1] c 35 N77-22449  
Nozzle extraction process and handmeter for measuring handle  
[NASA-CASE-LAR-12147-1] c 31 N79-11246
- MCHEURY, R. J.**  
Method for forming pyrrone molding powders and products of said method  
[NASA-CASE-LAR-10423-1] c 23 N82-28358
- MCHEURY, T. F.**  
Miniature carbon dioxide sensor and methods  
[NASA-CASE-MSC-13332-1] c 14 N72-21408
- MCCHUGH, D. P.**  
Variable mixer propulsion cycle  
[NASA-CASE-LEW-12817-1] c 07 N78-18067
- MCINTOSH, M. J.**  
Process for the leaching of AP from propellant  
[NASA-CASE-NPO-14109-1] c 28 N80-23471
- MCKAY, R. A.**  
Combustor  
[NASA-CASE-NPO-13958-1] c 25 N79-11151
- MCKEE, C. W.**  
Fluid control apparatus and method  
[NASA-CASE-LAR-11110-1] c 34 N75-26282
- MCKENNA, J. F., JR.**  
Fault tolerant clock apparatus utilizing a controlled minority of clock elements  
[NASA-CASE-MSC-12531-1] c 35 N75-30504
- MCKENNA, R. T.**  
Automatic character skew and spacing checking network  
[NASA-CASE-GSC-11925-1] c 33 N76-18353
- MCKENZIE, R. L.**  
Diatomic infrared gasdynamic laser  
[NASA-CASE-ARC-10370-1] c 36 N75-31426
- MCKEOWN, D.**  
Method for attaching a fused-quartz mirror to a conductive metal substrate  
[NASA-CASE-MFS-23405-1] c 26 N77-29260
- MCKEVITT, F. X.**  
Swirling flow nozzle Patent  
[NASA-CASE-XNP-03692] c 28 N71-24321
- MCKINNEY, R. L.**  
Self-calibrating displacement transducer Patent  
[NASA-CASE-XLA-00781] c 09 N71-22999
- MCKINNON, R. A.**  
External liquid-spray cooling of turbine blades Patent  
[NASA-CASE-XLE-00037] c 28 N70-33372
- MCLAIN, J. H.**  
Air bearing Patent  
[NASA-CASE-XMF-01887] c 15 N71-10617
- MCLAUCHLAN, J. M.**  
Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent  
[NASA-CASE-XNP-06957] c 14 N71-21088  
Light position locating system Patent  
[NASA-CASE-XNP-01059] c 23 N71-21821  
Ranging system  
[NASA-CASE-NPO-15865-1] c 74 N83-12991  
Method for making a bonded single mode fiber optic wavelength coupler  
[NASA-CASE-NPO-15484-1] c 74 N83-25540
- MCLEAN, F. E.**  
Supersonic aircraft Patent  
[NASA-CASE-XLA-04451] c 02 N71-12243
- MCLYMAN, C. W. T.**  
Inverter oscillator with voltage feedback  
[NASA-CASE-NPO-10780] c 09 N72-25254  
Banded transformer cores  
[NASA-CASE-NPO-11968-1] c 33 N74-17928
- MCLYMAN, W. T.**  
Phase substitution of spare converter for a failed one of parallel phase staggered converters  
[NASA-CASE-NPO-13812-1] c 33 N77-30365  
Elimination of current spikes in buck power converters  
[NASA-CASE-NPO-14505-1] c 33 N81-19393  
Push-pull converter with energy saving circuit for protecting switching transistors from peak power stress  
[NASA-CASE-NPO-14318-1] c 33 N81-33404
- MCMASTER, L. R.**  
Meteoroid detector  
[NASA-CASE-LAR-10483-1] c 14 N73-32327
- MCNEAR, M. F.**  
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-28043
- MENUTT, W. C.**  
Dual latching solenoid valve Patent  
[NASA-CASE-XMS-05890] c 09 N71-23191
- MCRONALD, A. D.**  
Thin film gauge  
[NASA-CASE-NPO-10617-1] c 35 N74-22095
- MCSMITH, D. D.**  
Variable response load limiting device  
[NASA-CASE-LAR-12801-1] c 37 N82-20544  
Tubing and cable cutting tool  
[NASA-CASE-LAR-12786-1] c 37 N84-28085
- MCSTAY, J. J.**  
Apparatus including a plurality of spaced transformers for locating short circuits in cables  
[NASA-CASE-KSC-10899-1] c 33 N79-18193
- MCWILLIAMS, I. G.**  
Compact spectroradiometer  
[NASA-CASE-HQN-10683] c 14 N71-34389  
Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409
- MCWITHEY, R. R.**  
Metal matrix composite structural panel construction  
[NASA-CASE-LAR-12807-1] c 24 N84-11214
- MEAD, D. C.**  
Variable frequency oscillator with temperature compensation Patent  
[NASA-CASE-XNP-03916] c 09 N71-28810
- MEADOR, T. G., JR.**  
Light shield and cooling apparatus  
[NASA-CASE-LAR-12089-1] c 34 N74-23066
- MEALY, G. E.**  
Electrostatic thruster with improved insulators Patent  
[NASA-CASE-XLE-01902] c 28 N71-10574  
High voltage divider system Patent  
[NASA-CASE-XLE-02008] c 09 N71-21583
- MEDCALF, W. A.**  
Gas filter mounting structure  
[NASA-CASE-MSC-12297] c 14 N72-23457
- MEINTEL, A. J., JR.**  
Combined optical attitude and altitude indicating instrument Patent  
[NASA-CASE-XLA-01807] c 14 N71-23268
- MEISENHOLDER, G. W.**  
Photosensitive device to detect bearing deviation Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089  
Roll attitude star sensor system Patent  
[NASA-CASE-XNP-01307] c 21 N70-41856
- MEISSINGER, H. F.**  
Method of and device for determining the characteristics and flux distribution of micrometeorites  
[NASA-CASE-NPO-12127-1] c 81 N74-13130
- MELAMED, L.**  
Angular velocity and acceleration measuring apparatus  
[NASA-CASE-ERC-10292] c 14 N72-25410
- MELFI, L. T., JR.**  
Gas analyzer for bi-gaseous mixtures Patent  
[NASA-CASE-XLA-01131] c 14 N71-10774  
Ionization vacuum gauge with all but the end of the ion collector shielded Patent  
[NASA-CASE-XLA-07424] c 14 N71-18482
- MELLARS, B.**  
Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346
- MELUIG, J. F.**  
Technique for recovery of voice data from heat damaged magnetic tape  
[NASA-CASE-MSC-14219-1] c 32 N74-27612
- MELVILLE, R. D. S.**  
Stark-effect modulation of CO<sub>2</sub> laser with NH<sub>2</sub>D  
[NASA-CASE-NPO-11945-1] c 36 N76-18427
- MENEFE, E. O.**  
Three-axis controller Patent  
[NASA-CASE-XAC-01404] c 05 N70-41581  
Proportional controller Patent  
[NASA-CASE-XAC-03392] c 03 N70-41954
- MENGES, M. J.**  
Precipitation detector Patent  
[NASA-CASE-XLA-02619] c 10 N71-26334  
Dielectric molding apparatus Patent  
[NASA-CASE-LAR-10121-1] c 15 N71-26721
- MENICHELLI, V. J.**  
Optically detonated explosive device  
[NASA-CASE-NPO-11743-1] c 28 N74-27425  
Electroexplosive device  
[NASA-CASE-NPO-13858-1] c 28 N79-11231
- MENTZER, C. A.**  
Horn antenna having V-shaped corrugated slots  
[NASA-CASE-LAR-11112-1] c 32 N78-15330
- MENZIES, R. T.**  
Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver  
[NASA-CASE-NPO-11918-1] c 35 N74-11284  
Fluorescence detector for monitoring atmospheric pollutants  
[NASA-CASE-NPO-13231-1] c 45 N75-27585

- Digital control of diode laser for atmospheric spectroscopy  
[NASA-CASE-NPO-16000-1] c 36 N83-24842
- Spectrophone stabilized laser with line center offset frequency control  
[NASA-CASE-NPO-15516-1] c 38 N84-22943
- MERHAV, S. J.  
Autonomous navigation system  
[NASA-CASE-ARC-11257-1] c 04 N81-21047
- MERLEN, M. M.  
Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent  
[NASA-CASE-XNP-06957] c 14 N71-21088
- MERRBAUM, S.  
Multifunctional transducer  
[NASA-CASE-NPO-14329-1] c 52 N81-20703
- MERRICK, V. K.  
Stabilization of gravity oriented satellites Patent  
[NASA-CASE-XAC-01591] c 31 N71-17729
- MERRILL, J. T., IV  
Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot  
[NASA-CASE-LAR-10550-1] c 09 N74-30597
- MESSINEO, S. V.  
Apparatus for positioning modular components on a vertical or overhead surface  
[NASA-CASE-LAR-11485-1] c 37 N76-21554
- MESSNER, A.  
System for generating timing and control signals  
[NASA-CASE-NPO-13125-1] c 33 N75-19519
- MESZAROS, G.  
Recovery of radiation damaged solar cells through thermal annealing  
[NASA-CASE-XGS-04047-2] c 03 N72-11062
- METCALFE, A. G.  
Silicide coatings for refractory metals Patent  
[NASA-CASE-XLE-10910] c 18 N71-29040
- METZGER, A. E.  
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer  
[NASA-CASE-XNP-05231] c 14 N73-28491
- METZLER, A. J.  
Black-body furnace Patent  
[NASA-CASE-XLE-01399] c 33 N71-15625
- MEYER, A. J., JR.  
Modification and improvements to cooled blades Patent  
[NASA-CASE-XLE-00092] c 15 N70-33264
- Aerial capsule emergency separation device Patent  
[NASA-CASE-XLA-00115] c 03 N70-33343
- Space capsule Patent  
[NASA-CASE-XLA-00149] c 31 N70-37938
- Vehicle parachute and equipment jettison system Patent  
[NASA-CASE-XLA-00195] c 02 N70-38009
- Ablation structures Patent  
[NASA-CASE-XMS-01818] c 33 N71-15623
- Space capsule Patent  
[NASA-CASE-XLA-01332] c 31 N71-15664
- MEYER, J. A.  
Altitude sensing device  
[NASA-CASE-XMS-01894-1] c 14 N72-17326
- MEYER, J. F.  
Time-division multiplexer Patent  
[NASA-CASE-XNP-00431] c 09 N70-38998
- MEYER, K. A.  
High-temperature, high-pressure spherical segment valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817
- MEYER, T. N.  
Method of producing silicon  
[NASA-CASE-NPO-14382-1] c 31 N80-18231
- MEYERS, J. L.  
Auto covariance computer  
[NASA-CASE-LAR-12968-1] c 35 N83-34273
- MICALE, F. J.  
Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242
- MICHAEL, J. E.  
Connector - Electrical  
[NASA-CASE-XLA-01288] c 09 N89-21470
- Missile stage separation indicator and stage initiator Patent  
[NASA-CASE-XLA-00791] c 03 N70-39930
- MICHAUD, R. B.  
Urine collection device  
[NASA-CASE-MSC-18433-1] c 52 N78-27750
- Urine collection device  
[NASA-CASE-MSC-18433-1] c 52 N81-24711
- Urine collection apparatus  
[NASA-CASE-MSC-18381-1] c 52 N81-28740
- MICHEL, R. E.  
Convoluting device for forming convolutions and the like Patent  
[NASA-CASE-XNP-05297] c 15 N71-23811
- MICKA, E. Z.  
Cross correlation anomaly detection system  
[NASA-CASE-NPO-13283] c 38 N78-17395
- Automatic visual inspection system for microelectronics  
[NASA-CASE-NPO-13282] c 38 N78-17396
- MICKELSEN, W. R.  
High-vacuum condenser tank for ion rocket tests Patent  
[NASA-CASE-XLE-00168] c 11 N70-33278
- MIDDLETON, J. H.  
Technique for extending the frequency range of digital dividers  
[NASA-CASE-LAR-10730-1] c 33 N74-10223
- MIDDLETON, O.  
Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13852-2] c 44 N78-24431
- MIDDLETON, R. L.  
Cryogenic thermal insulation Patent  
[NASA-CASE-NPO-05046] c 33 N71-28892
- MIDDLETON, W. D.  
Supersonic aircraft Patent  
[NASA-CASE-XLA-04451] c 02 N71-12243
- MIERTSCHIN, J. L.  
Radio frequency filter device  
[NASA-CASE-XLA-02609] c 09 N72-25256
- MIKROYANNIDIS, J. A.  
The 1 - (dialkoxyposphoryl)methyl-2,4- and -2,6-dinitro- and diamino benzenes and their derivatives  
[NASA-CASE-ARC-11425-1] c 23 N83-28078
- Polymers of phosphorylmethyl-2,4- and -2,6-diamino benzenes and the like  
[NASA-CASE-ARC-11508-1] c 27 N84-12313
- Fire resistant polymers based on 1-(dialkoxyposphoryl)methyl-2,4- and -2,6-diaminobenzenes  
[NASA-CASE-ARC-11512-1] c 27 N84-20702
- MIKSZAN, D. P.  
Frequency shift keying apparatus Patent  
[NASA-CASE-XGS-01537] c 07 N71-23405
- MIKULAS, M. M., JR.  
Composite sandwich lattice structure  
[NASA-CASE-LAR-11898-1] c 24 N78-10214
- Method of making a composite sandwich lattice structure  
[NASA-CASE-LAR-11898-2] c 24 N78-17149
- Sequentially deployable maneuverable tetrahedral beam  
[NASA-CASE-LAR-13098-1] c 31 N83-35178
- Synchronously deployable truss structure  
[NASA-CASE-LAR-13117-1] c 18 N84-18250
- MILDICE, J. W.  
Light radiation direction indicator with a baffle of two parallel grids  
[NASA-CASE-XNP-03930] c 14 N69-24331
- MILES, P. A.  
Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028
- MILES, R. T.  
Oceanic wave measurement system  
[NASA-CASE-MFS-23862-1] c 48 N80-18667
- MILKULLA, V.  
Method for making a hot wire anemometer and product thereof  
[NASA-CASE-ARC-10900-1] c 35 N77-24454
- MILLEN, E. W.  
Aircraft lifter  
[NASA-CASE-LAR-12518-1] c 06 N84-32383
- MILLER, A. J.  
Binary to binary coded decimal converter  
[NASA-CASE-GSC-12044-1] c 60 N78-17691
- MILLER, B. A.  
Self stabilizing sonic inlet  
[NASA-CASE-LEW-11890-1] c 05 N79-24978
- MILLER, C. D.  
Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22809
- MILLER, C. E.  
Densitometer Patent  
[NASA-CASE-XLE-00688] c 14 N70-41330
- MILLER, C. G.  
Dispensing targets for ion beam particle generators  
[NASA-CASE-NPO-13112-1] c 73 N74-26787
- Sampler of gas borne particles  
[NASA-CASE-NPO-13398-1] c 35 N78-18401
- Indicator providing continuous indication of the presence of a specific pollutant in air  
[NASA-CASE-NPO-13474-1] c 45 N78-21742
- Cryostat system for temperatures on the order of 2 deg K or less  
[NASA-CASE-NPO-13459-1] c 31 N77-10229
- Compact, high intensity arc lamp with internal magnetic field producing means  
[NASA-CASE-NPO-11510-1] c 33 N77-21315
- Depressurization of arc lamps  
[NASA-CASE-NPO-10790-1] c 33 N77-21316
- Arc control in compact arc lamps  
[NASA-CASE-NPO-10870-1] c 33 N77-22386
- Low to high temperature energy conversion system  
[NASA-CASE-NPO-13510-1] c 44 N77-32581
- Three-dimensional tracking solar energy concentrator and method for making same  
[NASA-CASE-NPO-13736-1] c 44 N77-32583
- Portable linear-focused solar thermal energy collecting system  
[NASA-CASE-NPO-13734-1] c 44 N78-10554
- Purging means and method for Xenon arc lamps  
[NASA-CASE-NPO-11978] c 31 N78-17238
- Low cost solar energy collection system  
[NASA-CASE-NPO-13579-1] c 44 N78-17460
- Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 31 N78-24387
- Solar pond  
[NASA-CASE-NPO-13581-2] c 44 N78-31525
- Primary reflector for solar energy collection systems  
[NASA-CASE-NPO-13579-4] c 44 N79-14529
- Primary reflector for solar energy collection systems and method of making same  
[NASA-CASE-NPO-13579-3] c 44 N79-24432
- Solar energy collection system  
[NASA-CASE-NPO-13579-2] c 44 N79-24433
- Multiple anode arc lamp system  
[NASA-CASE-NPO-10857-1] c 33 N80-14330
- Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 43 N81-26509
- Sphere forming method and apparatus  
[NASA-CASE-NPO-15070-1] c 31 N83-35176
- MILLER, D. P.  
Controllers Patent  
[NASA-CASE-XMS-07487] c 15 N71-23255
- MILLER, E.  
Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996
- MILLER, E. L.  
Electronic system for high power load control  
[NASA-CASE-NPO-15358-1] c 33 N83-27126
- MILLER, H. B.  
Compensating radiometer  
[NASA-CASE-XLA-04556] c 14 N69-27484
- Heat sensing instrument Patent  
[NASA-CASE-XLA-01551] c 14 N71-22969
- Spherical measurement device  
[NASA-CASE-XLA-06683] c 14 N72-28438
- MILLER, J. A., JR.  
Method of forming difunctional polyisobutylene  
[NASA-CASE-NPO-10893] c 27 N73-22710
- MILLER, J. C.  
Apparatus for detecting the amount of material in a resonant cavity container Patent  
[NASA-CASE-XNP-02500] c 18 N71-27387
- MILLER, J. E.  
Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149
- MILLER, J. Q.  
Ultrasonic calibration device  
[NASA-CASE-LAR-11435-1] c 35 N78-15432
- MILLER, J. L.  
Boring bar drive mechanism Patent  
[NASA-CASE-XLA-03861] c 15 N71-33518
- MILLER, P. C.  
Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02768] c 17 N71-20743
- MILLER, R. A.  
Corrosion resistant thermal barrier coating  
[NASA-CASE-LEW-13088-1] c 28 N81-25188
- MILLER, W. E.  
Photocapacitive image converter  
[NASA-CASE-LAR-12513-1] c 44 N82-32841
- MILLER, W. N.  
Hermetically sealable package for hybrid solid-state electronic devices and the like  
[NASA-CASE-MSC-20181-1] c 33 N82-28549
- MILLIGAN, G. C.  
Digital memory sense amplifying means Patent  
[NASA-CASE-NXP-01012] c 08 N71-28925
- MILLIKEN, D. B.  
Film feed camera having a detent means Patent  
[NASA-CASE-LAR-10688] c 14 N71-28935
- MILLIKEN, J. F.  
Linear differential pressure sensor Patent  
[NASA-CASE-XMF-01974] c 14 N71-22752
- MILLS, M. K.  
Tracking antenna system Patent  
[NASA-CASE-GSC-10553-1] c 07 N71-19854
- Antenna array at focal plane of reflector with coupling network for beam switching Patent  
[NASA-CASE-GSC-10220-1] c 07 N71-27233

## MILLS, S. M.

- Transient-compensated SCR inverter  
[NASA-CASE-XLA-08507] c 09 N69-39984
- Apparatus for microbiological sampling  
[NASA-CASE-LAR-11069-1] c 35 N75-12272
- Automatic inoculating apparatus  
[NASA-CASE-LAR-11074-1] c 51 N75-13502
- Automatic microbial transfer device  
[NASA-CASE-LAR-11354-1] c 35 N75-27330
- Measurement of gas production of microorganisms  
[NASA-CASE-LAR-11326-1] c 35 N75-33368
- Automated single-slide staining device  
[NASA-CASE-LAR-11649-1] c 51 N77-27877
- MILLY, J. J.  
Satellite despin device Patent  
[NASA-CASE-XMF-08523] c 31 N71-20396
- MINDERMAN, P. A.  
Liquid hydrogen polygeneration system and process  
[NASA-CASE-KSC-11304-1] c 28 N84-29017
- MINKIN, H. L.  
Liquid flow sight assembly Patent  
[NASA-CASE-XLE-02998] c 14 N70-42074
- MINOTT, P. O.  
Retrodirective optical system  
[NASA-CASE-XGS-04480] c 16 N69-27491
- Retrodirective modulator Patent  
[NASA-CASE-GSC-10062] c 14 N71-15605
- Multiprism collimator  
[NASA-CASE-GSC-12608-1] c 74 N83-10900
- Interferometric angle monitor  
[NASA-CASE-GSC-12614-1] c 74 N83-32577
- High speed multi focal plane optical system  
[NASA-CASE-GSC-12683-1] c 74 N83-36898
- Dual aperture multispectral Schmidt objective  
[NASA-CASE-GSC-12756-1] c 74 N84-23248
- MINTER, E. J.  
Method of peening and portable peening gun  
[NASA-CASE-MFS-23047-1] c 37 N76-18454
- MINTON, F. R.  
Window defect planar mapping technique  
[NASA-CASE-MSC-19442-1] c 74 N77-10899
- MINTON, U. O.  
Window defect planar mapping technique  
[NASA-CASE-MSC-19442-1] c 74 N77-10899
- MIRITCH, M. J.  
Modification of the electrical and optical properties of polymers  
[NASA-CASE-LEW-13027-1] c 27 N80-24437
- Surface texturing of fluoropolymers  
[NASA-CASE-LEW-13028-1] c 27 N82-33521
- Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986
- Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425
- MIRITCH, M. J., JR.  
Hydrogen hollow cathode ion source  
[NASA-CASE-LEW-12940-1] c 72 N80-33186
- MISERENTINO, R.  
Displacement probes with self-contained exciting medium  
[NASA-CASE-LAR-11690-1] c 35 N80-14371
- MITCHELL, D. K.  
Borescope with variable angle scope  
[NASA-CASE-MFS-15162] c 14 N72-32452
- MITCHELL, F. R.  
Attitude control for spacecraft Patent  
[NASA-CASE-XNP-00294] c 21 N70-36938
- MITCHELL, G. A.  
Airflow control system for supersonic inlets  
[NASA-CASE-LEW-11188-1] c 02 N74-20646
- MITCHELL, N. M.  
Method and apparatus for detection and location of microleaks Patent  
[NASA-CASE-XMF-02307] c 14 N71-10779
- MITCHELL, V. M.  
Digital cardiometer system Patent  
[NASA-CASE-XMS-02399] c 05 N71-22896
- MITCHUM, L. L., JR.  
Collapsible loop antenna for space vehicle Patent  
[NASA-CASE-XMF-00437] c 07 N70-40202
- MIXSON, J. S.  
Ring wing tension vehicle Patent  
[NASA-CASE-XLA-04901] c 31 N71-24315
- MOACANIN, J.  
Ionen membrane separator  
[NASA-CASE-NPO-11091] c 18 N72-22567
- Method of making hollow elastomeric bodies  
[NASA-CASE-NPO-13535-1] c 37 N76-31524
- Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect  
[NASA-CASE-NPO-14657-1] c 74 N81-17887
- Broadband optical radiation detector  
[US-PATENT-4,262,198] c 74 N83-19597
- MOECKEL, W. E.  
Electro-thermal rocket Patent  
[NASA-CASE-XLE-00267] c 28 N70-33358
- MOEDE, L. W.  
Wide range analog-to-digital converter with a variable gain amplifier  
[NASA-CASE-NPO-11018] c 08 N72-21200
- Digital control and information system  
[NASA-CASE-NPO-11016] c 08 N72-31226
- MOEN, W. K.  
Self-cycling fluid heater  
[NASA-CASE-MSC-15567-1] c 33 N73-16918
- MOFFITT, F. L.  
Image magnification adapter for cameras Patent  
[NASA-CASE-XMF-03844-1] c 14 N71-26474
- MOGAVERO, L. N.  
System and method for tracking a signal source  
[NASA-CASE-HQN-10880-1] c 17 N78-17140
- MONAGHAN, R. C.  
Inflatable device for installing strain gage bridges  
[NASA-CASE-FRC-11068-1] c 35 N84-12443
- MONDT, J. F.  
Nuclear thermionic converter  
[NASA-CASE-NPO-13121-1] c 73 N77-18891
- MONFORD, L. G., JR.  
Radiometric temperature reference Patent  
[NASA-CASE-MSC-13276-1] c 14 N71-27058
- Multifunction audio digitizer  
[NASA-CASE-MSC-13855-1] c 35 N74-17885
- Digital communication system  
[NASA-CASE-MSC-13912-1] c 32 N74-30524
- Binary concatenated coding system  
[NASA-CASE-MSC-14082-1] c 60 N76-23850
- MONSON, D. J.  
Dual-beam skin friction interferometer  
[NASA-CASE-ARC-11354-1] c 74 N83-21949
- MONTEITH, J. H.  
Flow velocity and directional instrument  
[NASA-CASE-LAR-10855-1] c 14 N73-13415
- MONTEITH, L. K.  
Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N78-22509
- MONTGOMERY, L. C.  
Process for preparing sterile solid propellants Patent  
[NASA-CASE-XNP-01749] c 27 N70-41897
- Processing for producing a sterilized instrument Patent  
[NASA-CASE-XNP-09763] c 14 N71-20461
- MONTGOMERY, L. D.  
Readout electrode assembly for measuring biological impedance  
[NASA-CASE-ARC-10816-1] c 35 N78-24525
- MONTVOYA, L. C.  
System for use in conducting wake investigation for a wing in flight  
[NASA-CASE-FRC-11024-1] c 02 N80-28300
- Skin friction measuring device for aircraft  
[NASA-CASE-FRC-11029-1] c 06 N81-17057
- MOODY, D. L., JR.  
Readout electrode assembly for measuring biological impedance  
[NASA-CASE-ARC-10816-1] c 35 N76-24525
- MOONEY, V.  
Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772
- MOORE, C. D.  
Waveform simulator Patent  
[NASA-CASE-NPO-10251] c 10 N71-27365
- MOORE, H. D.  
Reversible ring counter employing cascaded single SCR stages Patent  
[NASA-CASE-XGS-01473] c 09 N71-10673
- MOORE, R. C.  
Open loop digital frequency multiplier  
[NASA-CASE-MSC-12709-1] c 33 N77-24375
- MOORE, R. L.  
Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688
- Rotary actuator  
[NASA-CASE-NPO-10680] c 31 N73-14855
- MOORE, T. C.  
Strain gage calibration  
[NASA-CASE-LAR-12743-1] c 35 N84-28019
- MOORE, T. J.  
Welding blades to rotors  
[NASA-CASE-LEW-10533-1] c 15 N73-28515
- Enhanced diffusion welding  
[NASA-CASE-LEW-11368-1] c 15 N73-32358
- Production of hollow components for rolling element bearings by diffusion welding  
[NASA-CASE-LEW-11026-1] c 15 N73-33383
- Apparatus for welding blades to rotors  
[NASA-CASE-LEW-10533-2] c 37 N74-11300
- Diffusion welding in air  
[NASA-CASE-LEW-11387-1] c 37 N74-18128
- MOORE, W. A.  
Journal bearings  
[NASA-CASE-LEW-11076-1] c 37 N74-21061
- Journal Bearings  
[NASA-CASE-LEW-11076-2] c 37 N74-32921
- Lubricated journal bearing  
[NASA-CASE-LEW-11076-3] c 37 N75-30562
- Fluid journal bearings  
[NASA-CASE-LEW-11076-4] c 37 N76-15461
- MORANDO, J. A.  
Hydraulic transformer Patent  
[NASA-CASE-MFS-20830] c 15 N71-30028
- MORDECAI, T. T.  
Method of recording a gas flow pattern Patent  
[NASA-CASE-XMF-01779] c 12 N71-20815
- MORECROFT, J. H.  
Incremental motion drive system Patent  
[NASA-CASE-XNP-08897] c 15 N71-17694
- MORELLI, F. A.  
Process for preparing sterile solid propellants Patent  
[NASA-CASE-XNP-01749] c 27 N70-41897
- Processing for producing a sterilized instrument Patent  
[NASA-CASE-XNP-09763] c 14 N71-20461
- MOREMAN, O. S., III  
Deformable bearing seat  
[NASA-CASE-LEW-12527-1] c 37 N77-32500
- Bearing seat usable in a gas turbine engine  
[NASA-CASE-LEW-12477-1] c 37 N77-32501
- MORGAN, C. J.  
Workpiece positioning vise  
[NASA-CASE-KSC-12762-1] c 37 N84-28083
- MORGAN, I. T., JR.  
Translatory shock absorber for attitude sensors  
[NASA-CASE-MFS-22905-1] c 19 N76-22284
- MORGAN, J. E.  
Condition sensor system and method  
[NASA-CASE-MSC-14805-1] c 54 N78-32720
- MORGAN, L. E.  
Serial data correlator/code translator  
[NASA-CASE-KSC-11025-1] c 32 N83-13323
- MORGAN, W. C.  
Thin-walled pressure vessel Patent  
[NASA-CASE-XLE-04677] c 15 N71-10577
- MORISSETTE, S.  
Junction range finder  
[NASA-CASE-KSC-10108] c 14 N73-25461
- MORRELL, G.  
Method for continuous variation of propellant flow and thrust in propulsive devices Patent  
[NASA-CASE-XLE-00177] c 28 N70-40367
- MORRIS, D. E.  
Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979] c 06 N72-25151
- Polymerizable disilanes having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979-2] c 06 N73-32030
- MORRIS, J. F.  
Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases  
[NASA-CASE-XLE-00690] c 25 N69-39884
- Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12050-1] c 35 N77-32454
- Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance  
[NASA-CASE-LEW-12174-2] c 35 N79-14346
- High thermal power density heat transfer  
[NASA-CASE-LEW-12950-1] c 34 N82-11399
- Heat pipes containing alkali metal working fluid  
[NASA-CASE-LEW-12253-1] c 74 N83-19596
- High thermal power density heat transfer apparatus providing electrical isolation at high temperature using heat pipes  
[NASA-CASE-LEW-12950-2] c 44 N83-29804
- Thermionic energy converters  
[NASA-CASE-LEW-12443-1] c 44 N83-32175
- MORRIS, J. R.  
Difference circuit Patent  
[NASA-CASE-XNP-08274] c 10 N71-13537
- MORRIS, P. W.  
Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423
- MORRISSETTE, E. L.  
Powder fed sheared dispersal particle generator  
[NASA-CASE-LAR-12785-1] c 37 N84-16561
- MORRISON, A. D.  
Total immersion crystal growth  
[NASA-CASE-NPO-15800-1] c 76 N83-15149
- Method for growing low defect, high purity crystalline layers  
[NASA-CASE-NPO-15813-1] c 76 N83-30269

## N

- MORRISON, H. D.**  
Anti-fog composition  
[NASA-CASE-MSC-13530-2] c 23 N75-14834
- MORSE, C. P.**  
Method and device for cooling Patent  
[NASA-CASE-HQN-00938] c 33 N71-29053
- MORTENSEN, L. O.**  
Impact monitoring apparatus  
[NASA-CASE-MSC-15628-1] c 14 N72-25411
- MOSER, B. G.**  
Zeta potential flowmeter Patent  
[NASA-CASE-XNP-06509] c 14 N71-23226  
Method for controlling vapor content of a gas  
[NASA-CASE-NPO-10633] c 03 N72-28025  
Polymeric compositions and their method of manufacture  
[NASA-CASE-NPO-10424-1] c 27 N81-24258
- MOSER, J. C.**  
Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15566
- MOSIER, B.**  
Pressed disc type sensing electrodes with ion-screening means Patent  
[NASA-CASE-XMS-04212-1] c 05 N71-12346  
Plated electrodes Patent  
[NASA-CASE-XMS-04213-1] c 09 N71-26002  
Method of making a perspiration resistant biopotential electrode  
[NASA-CASE-MSC-90153-2] c 05 N72-25120
- MOSIER, J. R.**  
Decontamination of petroleum products Patent  
[NASA-CASE-XNP-03835] c 06 N71-23499
- MOSSOLANI, D. L.**  
Rotary leveling base platform  
[NASA-CASE-ARC-10981-1] c 37 N78-27425
- MOUNTVALA, A. J.**  
Lightweight refractory insulation and method of preparing the same Patent  
[NASA-CASE-XMF-05279] c 18 N71-18124
- MOYER, X. W.**  
Redundant actuating mechanism Patent  
[NASA-CASE-XGS-08718] c 15 N71-24600  
Delayed simultaneous release mechanism  
[NASA-CASE-GSC-10814-1] c 03 N73-20039
- MOYERS, C. V.**  
System for sterilizing objects  
[NASA-CASE-KSC-11085-1] c 54 N81-24724
- MOYNIHAN, P. I.**  
Fluidized bed coal combustion reactor  
[NASA-CASE-NPO-14273-1] c 25 N82-11144
- MROZ, T. S.**  
Direct heating surface combustor  
[NASA-CASE-LEW-11877-1] c 34 N78-27357
- MUEHTER, P. P.**  
Heat sterilizable patient ventilator  
[NASA-CASE-NPO-13313-1] c 54 N75-27761
- MUELLER, R. I.**  
Method for forming a solar array strip  
[NASA-CASE-NPO-13652-3] c 44 N80-14474
- MUELLER, R. L.**  
Solar array strip and a method for forming the same  
[NASA-CASE-NPO-13652-1] c 44 N79-17314  
Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13652-2] c 44 N79-24431
- MUELLER, W. A.**  
Aldehyde-containing urea-absorbing polysaccharides  
[NASA-CASE-NPO-13620-1] c 27 N77-30236  
Dialysis system  
[NASA-CASE-NPO-14101-1] c 52 N80-14687  
Sewage sludge additive  
[NASA-CASE-NPO-13877-1] c 45 N82-11634  
Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900
- MUGLER, S. W.**  
Precipitation detector Patent  
[NASA-CASE-XLA-02619] c 10 N71-26334
- MULHERN, J. E., JR.**  
Recorder using selective noise filter  
[NASA-CASE-ERC-10112] c 07 N72-21119
- MULLEN, D. L.**  
Matched thermistors for microwave power meters Patent  
[NASA-CASE-NPO-10348] c 10 N71-12554  
Broadband microwave waveguide window Patent  
[NASA-CASE-XNP-08880] c 09 N71-24808
- MULLEN, L. O.**  
Electrical insulating layer process  
[NASA-CASE-LEW-10489-1] c 15 N72-25447
- MULLEN, P. G.**  
Multicomputer communication system  
[NASA-CASE-NPO-15433-1] c 62 N83-20634
- MULLER, K.**  
Electric arc light source having undercut recessed anode  
[NASA-CASE-ARC-10266-1] c 33 N75-29318
- MULLER, R. M.**  
Method and apparatus for measuring web material wound on a reel  
[NASA-CASE-GSC-11902-1] c 38 N77-17495
- MULLIKEN, R. F.**  
Method of repairing discontinuity in fiberglass structures  
[NASA-CASE-LAR-10416-1] c 24 N74-30001
- MUMOLA, P. B.**  
Laser head for simultaneous optical pumping of several dye lasers  
[NASA-CASE-LAR-11341-1] c 36 N75-19655
- MUNFORD, J. A.**  
Laser measuring system for incremental assemblies  
[NASA-CASE-GSC-12321-1] c 38 N82-16396
- MUNOZ, R. M.**  
High efficiency multivibrator Patent  
[NASA-CASE-XAC-00942] c 10 N71-16042  
Nonlinear analog-to-digital converter Patent  
[NASA-CASE-XAC-04031] c 08 N71-18594  
Demodulation system Patent  
[NASA-CASE-XAC-04030] c 10 N71-19472  
Phase quadrature-plural channel data transmission system Patent  
[NASA-CASE-XAC-06302] c 08 N71-19763  
Continuous Fourier transform method and apparatus  
[NASA-CASE-ARC-10466-1] c 60 N75-13539
- MUNSON, R. E.**  
Turnstile slot antenna  
[NASA-CASE-GSC-11428-1] c 32 N74-20864
- MURACA, R. F.**  
Apparatus for testing polymeric materials Patent  
[NASA-CASE-XNP-09699] c 06 N71-24607  
Procedure and apparatus for determination of water in nitrogen tetroxide  
[NASA-CASE-NPO-10234] c 06 N72-17094
- MURCH, R. M.**  
Metal containing polymers from cyclic tetrameric phenylphosphonitrimides Patent  
[NASA-CASE-HQN-10364] c 06 N71-27363
- MURPHY, A. J.**  
Optically actuated two position mechanical mover  
[NASA-CASE-NPO-13105-1] c 37 N74-21060
- MURPHY, D. W.**  
Frangible link  
[NASA-CASE-MSC-11849-1] c 15 N72-22488  
Pressure limiting propellant actuating system  
[NASA-CASE-MSC-18179-1] c 20 N80-18097
- MURPHY, F. L.**  
Bimetallic power controlled actuator  
[NASA-CASE-XNP-09776] c 09 N69-39929
- MURPHY, J. P.**  
All sky pointing attitude control system  
[NASA-CASE-ARC-10718-1] c 35 N77-20399  
High acceleration cable deployment system  
[NASA-CASE-ARC-11256-1] c 15 N82-24272
- MURPHY, W. J.**  
Barium release system  
[NASA-CASE-LAR-10670-1] c 06 N73-30097  
Rocket having barium release system to create ion clouds in the upper atmosphere  
[NASA-CASE-LAR-10670-2] c 15 N74-27360
- MURTY, M. V. R. K.**  
Concave grating spectrometer Patent  
[NASA-CASE-XGS-01036] c 14 N70-40003
- MUSICK, R. O.**  
Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073
- MUSSETT, E. W.**  
Device for separating occupant from an ejection seat Patent  
[NASA-CASE-XMS-04625] c 05 N71-20718
- MYERS, D. A.**  
Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203
- MYERS, I. T.**  
Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter  
[NASA-CASE-LEW-12791-1] c 33 N78-32341
- MYERS, W. M.**  
Duct coupling for single-handed operation Patent  
[NASA-CASE-MFS-20395] c 15 N71-24903  
Mechanical thermal motor  
[NASA-CASE-MFS-23062-1] c 37 N77-12402  
Spherical bearing  
[NASA-CASE-MFS-23447-1] c 37 N79-11404  
Amplified wind turbine apparatus  
[NASA-CASE-MFS-23830-1] c 44 N82-24639  
Resilient seal ring assembly with spring means applying force to wedge member  
[NASA-CASE-MFS-25678-1] c 37 N84-11497
- NAESETH, R. L.**  
Aeroflexible structures  
[NASA-CASE-XLA-06095] c 01 N69-39981
- NAGANO, S.**  
Overload protection system for power inverter  
[NASA-CASE-NPO-13872-1] c 33 N78-10377  
Module failure isolation circuit for paralleled inverters  
[NASA-CASE-NPO-14000-1] c 33 N79-24254  
Circuit for automatic load sharing in parallel converter modules  
[NASA-CASE-NPO-14058-1] c 33 N79-24257  
Base drive for paralleled inverter systems  
[NASA-CASE-NPO-14163-1] c 33 N81-14220  
Redundant operation of counter modules  
[NASA-CASE-NPO-14162-1] c 60 N81-15706  
Low current linearization of magnetic amplifier for dc transducer  
[NASA-CASE-NPO-14617-1] c 33 N81-24338
- NAGLE, W. J.**  
Multi-cell battery protection system  
[NASA-CASE-LEW-12039-1] c 44 N78-14625  
Toroidal cell and battery  
[NASA-CASE-LEW-12918-1] c 44 N81-24521  
Additive for zinc electrodes  
[NASA-CASE-LEW-13286-1] c 33 N84-14422
- NAIDITCH, S.**  
Method of producing crystalline materials  
[NASA-CASE-NPO-10440] c 15 N72-21466
- NAKADA, M. P.**  
Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent  
[NASA-CASE-XNP-01056] c 14 N71-23041
- NAKAMURA, H. H.**  
Lightweight refractory insulation and method of preparing the same Patent  
[NASA-CASE-XMF-05279] c 18 N71-18124
- NAKANISHI, S.**  
Ion thruster cathoda Patent Application  
[NASA-CASE-LEW-10814-1] c 28 N70-35422  
Plasma device feed system Patent  
[NASA-CASE-XLE-02902] c 25 N71-21694  
Ion thruster accelerator system Patent  
[NASA-CASE-LEW-10106-1] c 28 N71-26642  
Propellant feed isolator Patent  
[NASA-CASE-LEW-10210-1] c 28 N71-26781  
Single grid accelerator for an ion thruster  
[NASA-CASE-XLE-10453-2] c 28 N73-27699
- NAKICH, R. B.**  
Apparatus for scanning the surface of a cylindrical body  
[NASA-CASE-NPO-11861-1] c 36 N74-20009  
Digital servo control of random sound test excitation  
[NASA-CASE-NPO-11623-1] c 71 N74-31148
- NANCE, H. M.**  
A dc motor speed control system Patent  
[NASA-CASE-MFS-14610] c 09 N71-28886
- NAPLES, J. F.**  
Method for forming plastic materials Patent  
[NASA-CASE-XMS-05516] c 15 N71-17803
- NARASIMHAN, K. Y.**  
System for detecting substructure microfractures and method therefore  
[NASA-CASE-NPO-14192-1] c 39 N80-10507  
System for plotting subsoil structure and method therefor  
[NASA-CASE-NPO-14191-1] c 31 N80-32584
- NASH, D. O.**  
Sound-suppressing structure with thermal relief  
[NASA-CASE-LEW-12658-1] c 71 N79-14871
- NASON, G. H.**  
Flexible blade antenna Patent  
[NASA-CASE-MSC-12101] c 09 N71-18720
- NASUTI, A. J.**  
Test fixture for pellet-like electrical elements  
[NASA-CASE-XNP-06032] c 09 N69-21926  
Support structure for irradiated elements Patent  
[NASA-CASE-XNP-06031] c 15 N71-15806
- NATHAN, R.**  
System for plotting subsoil structure and method therefor  
[NASA-CASE-NPO-14191-1] c 31 N80-32584
- NAUMANN, E. C.**  
Fatigue testing device Patent  
[NASA-CASE-XLA-02131] c 32 N70-42003  
Automatic fatigue test temperature programmer Patent  
[NASA-CASE-XLA-02059] c 33 N71-24276  
Arbitrarily shaped model survey system Patent  
[NASA-CASE-LAR-10098] c 32 N71-26681  
Function generator for synthesizing complex vibration mode patterns  
[NASA-CASE-LAR-10310-1] c 10 N73-20253

**NAUMANN, R. J.**  
Liquid aerosol dispenser  
[NASA-CASE-MFS-20829] c 12 N72-21310  
Carbon monoxide monitor  
[NASA-CASE-MFS-22060-1] c 35 N75-29380  
Containerless high purity pulling process and apparatus  
for glass fibers  
[NASA-CASE-MFS-25905-2] c 31 N84-32569  
**NEAL, P. F.**  
Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067  
**NEALY, J. E.**  
Combustion detector  
[NASA-CASE-LAR-10739-1] c 14 N73-16484  
**NELSON, B.**  
Deflective rod switch with elastic support and sealing  
means Patent  
[NASA-CASE-XNP-09808] c 09 N71-12518  
**NELSON, B. W.**  
Optical machine tool alignment indicator Patent  
[NASA-CASE-XAC-09489-1] c 15 N71-26673  
**NELSON, C. A.**  
Flipflop interrogator and bi-polar current driver Patent  
[NASA-CASE-XGS-03058] c 10 N71-19547  
**NELSON, C. H.**  
Ablation sensor  
[NASA-CASE-XLA-01781] c 14 N69-39975  
Reentry communication by material addition Patent  
[NASA-CASE-XLA-01552] c 07 N71-11284  
**NELSON, C. W.**  
X-ray determination of parts alignment  
[NASA-CASE-MSC-20418-1] c 37 N83-17882  
**NELSON, D. E.**  
Convoluting device for forming convolutions and the like  
Patent  
[NASA-CASE-XNP-05297] c 15 N71-23811  
**NELSON, E. P.**  
Safety-type locking pin  
[NASA-CASE-MFS-18495] c 15 N72-11385  
**NELSON, H. H.**  
Telemetry word forming unit  
[NASA-CASE-XNP-09225] c 09 N69-24333  
**NELSON, M. D.**  
Method for making a bonded single mode fiber optic  
wavelength coupler  
[NASA-CASE-NPO-15464-1] c 74 N83-25540  
**NELSON, W. J.**  
Slosh alleviator Patent  
[NASA-CASE-XLA-05749] c 15 N71-19569  
**NERAD, B. A.**  
Glass heating panels and method for preparing the same  
from architectural reflective glass  
[NASA-CASE-NPO-15753-1] c 27 N84-33589  
**NERHEIM, N. M.**  
Inert gas metallic vapor laser  
[NASA-CASE-NPO-13449-1] c 36 N75-32441  
**NESMITH, M. F.**  
Self-locking telescoping manipulator arm  
[NASA-CASE-MFS-25908-1] c 54 N84-11761  
Self-indexing latch system  
[NASA-CASE-MFS-25956-1] c 37 N84-20860  
**NEUGEBAUER, M.**  
Ion mass spectrometer  
[NASA-CASE-NPO-15423-1] c 35 N84-28016  
**NEWBY, D. T.**  
Hole cutter  
[NASA-CASE-MFS-22649-1] c 37 N75-25186  
**NEWCOMB, A. L., JR.**  
Electromagnetic mirror drive system  
[NASA-CASE-XLA-03724] c 14 N69-27481  
Ac power amplifier Patent Application  
[NASA-CASE-LAR-10218-1] c 09 N70-34559  
Variable duration pulse integrator Patent  
[NASA-CASE-XLA-01219] c 10 N71-23084  
Variable width pulse integrator Patent  
[NASA-CASE-XLA-03356] c 10 N71-23315  
Attitude sensor  
[NASA-CASE-LAR-10586-1] c 19 N74-15089  
**NEWCOMB, J. F.**  
Null device for hand controller Patent  
[NASA-CASE-XLA-01808] c 15 N71-20740  
**NEWCOMB, W. L.**  
Quick release separation mechanism Patent  
[NASA-CASE-XLA-01441] c 15 N70-41679  
**NEWCOMBE, C. A.**  
Method for making a heat insulating and ablative  
structure  
[NASA-CASE-XMS-01108] c 15 N69-24322  
**NEWMAN, D. F.**  
Test stand system for vacuum chambers  
[NASA-CASE-MFS-21362] c 11 N73-20267  
**NEWMAN, J. B.**  
Catalyst bed removing tool Patent  
[NASA-CASE-XFR-00811] c 15 N70-36901

**NEWMAN, J. M.**  
New polymers of perfluorobutadiene and method of  
manufacture Patent application  
[NASA-CASE-NPO-10863] c 06 N70-11251  
Polymers of perfluorobutadiene and method of  
manufacture  
[NASA-CASE-NPO-10863-2] c 06 N72-25152  
**NIBLEY, D. A.**  
Method for detecting coliform organisms  
[NASA-CASE-ARC-11322-1] c 51 N83-28849  
**NICHOLS, F. W.**  
Method and apparatus for fabricating improved solar  
cell modules  
[NASA-CASE-NPO-14416-1] c 44 N81-14389  
**NICHOLS, G. B.**  
Apparatus for controlling the velocity of an  
electromechanical drive for interferometers and the like  
Patent  
[NASA-CASE-XGS-03532] c 14 N71-17627  
Apparatus for phase stability determination Patent  
[NASA-CASE-XGS-01118] c 10 N71-23662  
**NICHOLS, G. H.**  
Aircraft canopy lock  
[NASA-CASE-FRC-11065-1] c 05 N83-18737  
**NICHOLS, J. J.**  
Force measuring instrument Patent  
[NASA-CASE-XMF-00456] c 14 N70-34705  
**NICHOLS, M. R.**  
Nacelle afterbody for jet engines Patent  
[NASA-CASE-XLA-10450] c 28 N71-21493  
Dual cycle aircraft turbine engine  
[NASA-CASE-LAR-11310-1] c 07 N77-28118  
**NICKLAS, J. C.**  
Attitude control for spacecraft Patent  
[NASA-CASE-XNP-02982] c 31 N70-41855  
Solar vane actuator Patent  
[NASA-CASE-XNP-05535] c 14 N71-23040  
**NICOL, W. S.**  
Vapor deposition apparatus  
[NASA-CASE-HQN-10462] c 25 N75-29182  
**NIEDRA, J. M.**  
Pulse coupling circuit  
[NASA-CASE-LEW-10433-1] c 09 N72-22197  
**NIEDZWIECKI, R. W.**  
Swirl can primary combustor  
[NASA-CASE-LEW-11326-1] c 23 N73-30665  
Controlled separation combustor  
[NASA-CASE-LEW-11593-1] c 20 N76-14190  
**NIELSON, T. L.**  
Technique of elbow bending small jacketed transfer lines  
Patent  
[NASA-CASE-XNP-10475] c 15 N71-24679  
**NIER, A. O.**  
Mass spectrometer with magnetic pole pieces providing  
the magnetic fields for both the magnetic sector and an  
ion-type vacuum pump  
[NASA-CASE-NPO-13663-1] c 35 N77-14406  
**NIESSEN, F. R.**  
Filtering technique based on high-frequency plant  
modeling for high-gain control  
[NASA-CASE-LAR-12215-1] c 08 N79-23097  
**NIR, Z.**  
Toughening reinforced epoxy composites with  
brominated polymeric additives  
[NASA-CASE-ARC-11427-1] c 24 N83-25791  
**NISEN, D. B.**  
Containerless high temperature calorimeter apparatus  
[NASA-CASE-MFS-23923-1] c 35 N81-19426  
Method and apparatus for supercooling and solidifying  
substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650  
**NISHIOKA, K.**  
Method for detecting coliform organisms  
[NASA-CASE-ARC-11322-1] c 51 N83-28849  
**NISSIM, E.**  
Suppression of flutter  
[NASA-CASE-LAR-10682-1] c 02 N73-26004  
**NISSWANDER, J. K.**  
Memory-based frame synchronizer  
[NASA-CASE-GSC-12430-1] c 60 N82-16747  
Memory-based parallel data output controller  
[NASA-CASE-GSC-12447-2] c 60 N84-28491  
**NITTA, H.**  
High-temperature, high-pressure spherical segment  
valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817  
**NIXON, D. L.**  
Parabolic reflector horn feed with spillover correction  
Patent  
[NASA-CASE-XNP-00540] c 09 N70-35382  
Indexing microwave switch Patent  
[NASA-CASE-XNP-06507] c 09 N71-23548  
Rotary vane attenuator wherein rotor has orthogonally  
disposed resistive and dielectric cards  
[NASA-CASE-NPO-11418-1] c 14 N73-13420

**NOBLE, R. M.**  
Solenoid construction Patent  
[NASA-CASE-XNP-01951] c 09 N70-41929  
**NOLA, F. J.**  
Positive dc to positive dc converter Patent  
[NASA-CASE-XMF-14301] c 09 N71-23188  
Positive dc to negative dc converter Patent  
[NASA-CASE-XMF-08217] c 03 N71-23239  
Transistor servo system including a unique differential  
amplifier circuit Patent  
[NASA-CASE-XMF-05195] c 10 N71-24861  
Brushless direct current tachometer Patent  
[NASA-CASE-MFS-20385] c 09 N71-24904  
Redundant speed control for brushless Hall effect  
motor  
[NASA-CASE-MFS-20207-1] c 09 N73-32107  
Induction motor control system with voltage controlled  
oscillator circuit  
[NASA-CASE-MFS-21465-1] c 10 N73-32145  
Variable frequency inverter for ac induction motors with  
torque, speed and braking control  
[NASA-CASE-MFS-22088-1] c 33 N75-15874  
Tachometer  
[NASA-CASE-MFS-23175-1] c 35 N77-30436  
Power factor control system for AC induction motors  
[NASA-CASE-MFS-23280-1] c 33 N78-10376  
Three phase power factor controller  
[NASA-CASE-MFS-25535-1] c 33 N81-12330  
Electrical power generating system  
[NASA-CASE-MFS-24368-3] c 33 N81-22280  
Power factor control system for ac induction motors  
[NASA-CASE-MFS-23988-1] c 33 N81-27395  
Motor power factor controller with a reduced voltage  
starter  
[NASA-CASE-MFS-25586-1] c 33 N82-11360  
Solar powered actuator with continuously variable  
auxiliary power control  
[NASA-CASE-MFS-25637-1] c 44 N82-26780  
Electrical power generating system  
[NASA-CASE-MFS-25302-1] c 33 N83-28319  
Triac failure detector  
[NASA-CASE-MFS-25607-1] c 33 N83-34190  
Control system for an induction motor with energy  
recovery  
[NASA-CASE-MFS-25477-1] c 33 N84-14424  
Pulsed thyristor trigger control circuit  
[NASA-CASE-MFS-25618-1] c 33 N84-16455  
Three phase power factor controller  
[NASA-CASE-MFS-25535-2] c 33 N84-22885  
Motor power control circuit for ac induction motors  
[NASA-CASE-MFS-25323-1] c 33 N84-22888  
Phase detector for three-phase power factor controller  
[NASA-CASE-MFS-25854-1] c 33 N84-27975  
Bi-directional control system for energy flow in a solar  
powered flywheel  
[NASA-CASE-MFS-25978-1] c 44 N84-32913  
Coupling an induction motor type generator to ac power  
lines  
[NASA-CASE-MFS-25302-2] c 33 N84-33660  
Three-phase power factor controller with induced EMF  
sensing  
[NASA-CASE-MFS-25852-1] c 33 N84-33661  
**NOLT, G. D.**  
Fluid driven sump pump  
[NASA-CASE-ARC-11414-1] c 37 N83-20152  
**NOONAN, K. W.**  
Family of airfoil shapes for rotating blades  
[NASA-CASE-LAR-12843-1] c 02 N84-11136  
**NORD, D. B.**  
Method of joining aluminum to stainless steel Patent  
[NASA-CASE-MFS-07369] c 15 N71-20443  
**NORDEN, B. N.**  
Hybrid holographic system using reflected and  
transmitted object beams simultaneously Patent  
[NASA-CASE-MFS-20074] c 16 N71-15565  
Holographic thin film analyzer  
[NASA-CASE-MFS-20823-1] c 16 N73-30476  
**NOREEM, S. J.**  
Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937  
**NORGREN, C. T.**  
Colloid propulsion method and apparatus Patent  
[NASA-CASE-XLE-00817] c 28 N70-33265  
Gas turbine combustor Patent  
[NASA-CASE-LEW-10286-1] c 28 N71-28915  
**NORK, C. L.**  
Sight switch using an infrared source and sensor  
Patent  
[NASA-CASE-XMF-03934] c 09 N71-22985  
**NORMAN, R. M.**  
Vibration isolation system using compression springs  
[NASA-CASE-NPO-11012] c 15 N72-11391  
Expandable support means  
[NASA-CASE-NPO-11059] c 15 N72-17454  
Zero torque gear head wrench  
[NASA-CASE-NPO-13059-1] c 37 N76-20480

- NORRIS, D. D.**  
Particle analyzing method and apparatus  
[NASA-CASE-NPO-15292-1] c 35 N83-27184
- NORTON, R. H.**  
Thrustor maintenance system Patent  
[NASA-CASE-MFS-20325] c 28 N71-27095  
Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420  
Interferometer  
[NASA-CASE-NPO-14448-1] c 74 N81-29963
- NORWOOD, J., JR.**  
Magnetically controlled plasma accelerator Patent  
[NASA-CASE-XLA-00327] c 25 N71-29184
- NOSSEN, E. J.**  
Frequency measurement by coincidence detection with standard frequency  
[NASA-CASE-MS-C-14849-1] c 33 N76-16331
- NOVOTNY, J. E.**  
Ultrastable calibrated light source  
[NASA-CASE-MS-C-12293-1] c 14 N72-27411
- NUSBAUM, W. J.**  
Apparatus for absorbing and measuring power Patent  
[NASA-CASE-XLE-00720] c 14 N70-40201

## O

- OAKLEY, E. C.**  
RF-source resistance meters  
[NASA-CASE-NPO-11291-1] c 14 N73-30388
- OBARA, C. J.**  
Geometries for roughness shapes in laminar flow  
[NASA-CASE-LAR-13255-1] c 02 N84-12092
- OBERSCHMIDT, M.**  
Flow test device  
[NASA-CASE-XMS-04917] c 14 N69-24257
- OBLER, H. D.**  
Air conditioning system and component therefore distributing air flow from opposite directions  
[NASA-CASE-GSC-11445-1] c 31 N74-27902  
Apparatus for supplying conditioned air at a substantially constant temperature and humidity  
[NASA-CASE-GSC-12191-1] c 31 N80-32583  
Variable speed drive  
[NASA-CASE-GSC-12643-1] c 37 N83-26078
- OBRAH, J. P.**  
Process for the preparation of polycarbonylphosphazenes  
[NASA-CASE-ARC-11176-2] c 27 N81-27271
- OBRIEN, D. E., III**  
Technique for recovery of voice data from heat damaged magnetic tape  
[NASA-CASE-MS-C-14219-1] c 32 N74-27612
- OBRIEN, J. P.**  
Carboranyl cyclotriphosphazenes and their polymers  
[NASA-CASE-ARC-11176-1] c 27 N82-18389
- OCALLAGHAN, F. G.**  
Integrated optics in an electrically scanned imaging Fourier transform spectrometer  
[NASA-CASE-NPO-15844-1] c 74 N83-12992
- OCONNER, B. J.**  
Failure detection and control means for improved drift performance of a gimbaled platform system  
[NASA-CASE-MFS-23551-1] c 04 N76-26175
- OCONNER, E. W.**  
Condensate removal device for heat exchanger  
[NASA-CASE-MS-C-14143-1] c 77 N75-20139
- OCONNOR, J. W.**  
Fastener stretcher  
[NASA-CASE-GSC-11149-1] c 15 N73-30457
- ODELL, H. G.**  
Dual latching solenoid valve Patent  
[NASA-CASE-XMS-05890] c 09 N71-23181
- ODONNELL, P. M.**  
Corrosion resistant beryllium Patent  
[NASA-CASE-LEW-10327] c 17 N71-33408
- ODONNELL, T. J.**  
Spherically-shaped rocket motor Patent  
[NASA-CASE-XHQ-01897] c 28 N70-35381
- OERTEL, G. K.**  
Fast opening diaphragm Patent  
[NASA-CASE-XLA-03660] c 15 N71-21060  
Measurement of time differences between luminous events Patent  
[NASA-CASE-XLA-01987] c 23 N71-23976
- OFARRELL, H. W.**  
Solar cell module assembly jig  
[NASA-CASE-XGS-00829-1] c 44 N79-19447
- OFFIK, W. G.**  
Emergency escape system Patent  
[NASA-CASE-XKS-02342] c 05 N71-11199
- OGDEN, H. F.**  
Aerodynamic measuring device Patent  
[NASA-CASE-XLA-00481] c 14 N70-36824  
Check valve assembly for a probe Patent  
[NASA-CASE-XLA-00128] c 15 N70-37925

- OGDEN, H. R.**  
Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02786] c 17 N71-20743
- OGLE, J. S.**  
Whole body measurement systems  
[NASA-CASE-MS-C-13972-1] c 52 N74-10975
- OHLSON, J. E.**  
System for interference signal nulling by polarization adjustment  
[NASA-CASE-NPO-13140-1] c 32 N75-24982  
Conical scan tracking system employing a large antenna  
[NASA-CASE-NPO-14009-1] c 32 N79-13214
- OKANE, J. H.**  
Pressure suit tie-down mechanism Patent  
[NASA-CASE-XMS-00784] c 05 N71-12335
- OKEAN, H. C.**  
High-Q bandpass resonators utilizing bandstop resonator pairs  
[NASA-CASE-GSC-10990-1] c 09 N73-26195
- OKEEFE, W. J.**  
Head-up attitude display  
[NASA-CASE-ERC-10392] c 21 N73-14692
- OKELLY, K. P.**  
Method of fluxless brazing and diffusion bonding of aluminum containing components  
[NASA-CASE-MS-C-14435-1] c 37 N76-18455
- OKUNOLA, O.**  
GaAs Schottky barrier photo-responsive device and method of fabrication  
[NASA-CASE-GSC-12816-1] c 76 N83-30268
- OLCOTT, J. W.**  
Integrated lift/drag controller for aircraft  
[NASA-CASE-ARC-10456-1] c 05 N75-12930
- OLDRIEVE, R. E.**  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288  
Method of making fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198  
Tantalum modified ferritic iron base alloys  
[NASA-CASE-LEW-12095-1] c 26 N78-18182
- OLIVER, G. D.**  
Scanning nozzle plating system  
[NASA-CASE-NPO-11758-1] c 31 N74-23065
- OLIVER, R. E.**  
Multiple reflection conical microwave antenna  
[NASA-CASE-NPO-11661] c 07 N73-14130
- OLIVER, R. L.**  
Apparatus for applying cover slides  
[NASA-CASE-NPO-10575] c 03 N72-25019
- OLLENDORF, S.**  
Structural heat pipe  
[NASA-CASE-GSC-11619-1] c 34 N75-12222  
Thermal control canister  
[NASA-CASE-GSC-12253-1] c 34 N79-31523
- OLLING, E. H.**  
Radial module space station Patent  
[NASA-CASE-XMS-01906] c 31 N70-41373
- OLSKASKY, M. J.**  
Laser camera and diffusion filter therefore Patent  
[NASA-CASE-NPO-10417] c 16 N71-33410
- OLSEN, W. A., JR.**  
Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988  
Hot wire liquid level detector for cryogenic fluids Patent  
[NASA-CASE-XLE-00454] c 23 N71-17802
- OLSON, W. T.**  
Inlet deflector for jet engines Patent  
[NASA-CASE-XLE-00388] c 28 N70-34788
- OLTMANS, D. A.**  
Matched thermistors for microwave power meters Patent  
[NASA-CASE-NPO-10348] c 10 N71-12554
- ONEIL, R. L.**  
Particulate and aerosol detector  
[NASA-CASE-LAR-11434-1] c 35 N76-22509
- ONEILL, R. W.**  
Monostable multivibrator with complementary NOR gates Patent  
[NASA-CASE-MS-C-13492-1] c 10 N71-28860  
Peak holding circuit for extremely narrow pulses  
[NASA-CASE-MS-C-14129-1] c 33 N75-18479
- ORAN, W. A.**  
Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15787  
Gas levitator having fixed levitation node for containerless processing  
[NASA-CASE-MFS-25509-1] c 35 N83-24828
- OREILLY, W. J.**  
Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203

- OREM, V. C.**  
Fastener stretcher  
[NASA-CASE-GSC-11149-1] c 15 N73-30457
- ORILLION, A. G.**  
Personal propulsion unit Patent  
[NASA-CASE-MFS-20130] c 28 N71-27585
- ORLIK, F. W.**  
Pressure seal Patent  
[NASA-CASE-NPO-10796] c 15 N71-27068
- ORLOFF, K. L.**  
Combined dual scatter, local oscillator laser Doppler velocimeter  
[NASA-CASE-ARC-10642-1] c 36 N76-14447  
Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978
- ORMES, J. F.**  
Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423
- ORMISTON, R. A.**  
Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029
- ORNER, J. W.**  
Method and apparatus for detecting gross leaks Patent  
[NASA-CASE-ERC-10033] c 14 N71-26672
- OROURKE, T. E., JR.**  
Sealing member and combination thereof and method of producing said sealing member Patent  
[NASA-CASE-XMS-01625] c 15 N71-23022
- ORTH, N. W.**  
Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-1] c 24 N81-17170  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-2] c 24 N81-26179
- OSHER, J. V.**  
Miniature muscle displacement transducer  
[NASA-CASE-NPO-13519-1] c 33 N78-19338
- OSMUNDSON, J.**  
Dually mode locked Nd:YAG laser  
[NASA-CASE-GSC-11746-1] c 36 N75-19654
- OSTROFF, A. J.**  
Star image motion compensator  
[NASA-CASE-LAR-10523-1] c 14 N72-22444
- OSTROFF, J.**  
Rotary actuator  
[NASA-CASE-NPO-10244] c 15 N72-26371
- OSULLIVAN, W. J., JR.**  
Method and apparatus for shock protection Patent  
[NASA-CASE-XLA-00482] c 15 N70-36409  
Self supporting space vehicle Patent  
[NASA-CASE-XLA-00117] c 31 N71-17680  
Thermal control wall panel Patent  
[NASA-CASE-XLA-01243] c 33 N71-22792  
Thermal control panel Patent  
[NASA-CASE-XLA-07728] c 33 N71-22890
- OTHMAN, T. E.**  
Safety-type locking pin  
[NASA-CASE-MFS-18495] c 15 N72-11385
- OTOSHI, T. Y.**  
Rotary vane attenuator wherein rotor has orthogonally disposed resistive and dielectric cards  
[NASA-CASE-NPO-11418-1] c 14 N73-13420
- OTTO, G. H.**  
Synthesis of superconducting compounds by explosive compaction of powders  
[NASA-CASE-MFS-20861-1] c 18 N73-32437
- OUTLAW, R. A.**  
In situ transfer standard for ultrahigh vacuum gage calibration  
[NASA-CASE-LAR-10862-1] c 35 N74-15092  
Precision manipulator heating and cooling apparatus for use in UHV systems with sample transfer capability  
[NASA-CASE-LAR-13040-1] c 35 N84-29191
- OWEN, R. B.**  
Collimated beam manifold with the number of output beams variable at a given output angle  
[NASA-CASE-MFS-25312-1] c 74 N83-17305  
Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680
- OWENS, L. J.**  
Magnetic electrical connectors for biomedical percutaneous implants  
[NASA-CASE-KSC-11030-1] c 52 N77-25772  
Rotational joint assembly for the prosthetic leg  
[NASA-CASE-KSC-11004-1] c 54 N77-30749  
Ocean thermal plant  
[NASA-CASE-KSC-11034-1] c 44 N78-32542

- Illumination control apparatus for compensating solar light  
[NASA-CASE-KSC-11010-1] c 74 N79-12890
- Prosthesis coupling  
[NASA-CASE-KSC-11069-1] c 52 N79-26772
- OZAWA, T.**  
Portable reflectance spectrometer  
[NASA-CASE-NPO-13556-1] c 35 N84-33766

## P

- PACALA, T. J.**  
Charge transfer reaction laser with preionization means  
[NASA-CASE-NPO-13945-1] c 36 N78-27402
- Pulse switching for high energy lasers  
[NASA-CASE-NPO-14556-1] c 33 N82-24418
- PACE, G. D., JR.**  
Sun direction detection system.  
[NASA-CASE-NPO-13722-1] c 74 N77-22951
- PACIOREK, K. J. L.**  
Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-1] c 27 N78-32256
- Compound oxidized styrylphosphine  
[NASA-CASE-MSC-14903-2] c 27 N80-10358
- Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-3] c 27 N80-24438
- Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353
- PACKARD, R. D.**  
Semiconductor surface protection material  
[NASA-CASE-ERC-10339-1] c 18 N73-30532
- PACKER, P. N.**  
Adjustable securing base  
[NASA-CASE-MSC-19866-1] c 37 N78-17383
- Variable contour securing system  
[NASA-CASE-MSC-18270-1] c 37 N78-27423
- PADILLA, D.**  
Method and apparatus for fluffing, separating, and cleaning fibers  
[NASA-CASE-LAR-11224-1] c 37 N76-18456
- PAGE, N. A.**  
Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541
- PAGEL, L. L.**  
Cooling system for high speed aircraft  
[NASA-CASE-LAR-12406-1] c 05 N81-26114
- PAIK, S. F.**  
Parametric microwave noise generator Patent  
[NASA-CASE-XER-11019] c 09 N71-23598
- PAIK, W. W.**  
Apparatus for recovering matter adhered to a host surface  
[NASA-CASE-NPO-11213] c 15 N73-20514
- PAINTER, J. H.**  
Anti-multipath digital signal detector  
[NASA-CASE-LAR-11827-1] c 32 N77-10392
- PALANDATI, C. F., JR.**  
Prevention of pressure build-up in electrochemical cells  
Patent  
[NASA-CASE-XGS-01419] c 03 N70-41884
- PALMER, E. L.**  
Apparatus for testing a pressure responsive instrument  
Patent  
[NASA-CASE-XMF-04134] c 14 N71-23755
- PALSINGH, S.**  
Anti-gravity device  
[NASA-CASE-MFS-22758-1] c 70 N75-26789
- PAN, F. M.**  
A dc-coupled noninverting one-shot Patent  
[NASA-CASE-XNP-09450] c 10 N71-18723
- PAOLINI, J. J.**  
Full flow with shut off and selective drainage control valve Patent application  
[NASA-CASE-ERC-10208] c 15 N70-10867
- PAPELL, S. S.**  
Low viscosity magnetic fluid obtained by the colloidal suspension of magnetic particles Patent  
[NASA-CASE-XLE-01512] c 12 N70-40124
- Liquid storage tank venting device for zero gravity environment Patent  
[NASA-CASE-XLE-01449] c 15 N70-41646
- Capacitor and method of making same Patent  
[NASA-CASE-LEW-10384-1] c 09 N71-13522
- Fluid dispensing apparatus and method Patent  
[NASA-CASE-XLE-01182] c 27 N71-15635
- Curved film cooling admission tube  
[NASA-CASE-LEW-13174-1] c 34 N83-27144
- Vortex generating flow passage design for increased film cooling effectiveness  
[NASA-CASE-LEW-14039-1] c 34 N84-20782
- PAQUETTE, E. G.**  
Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568

- PARDOE, C. T.**  
Telemetry synchronizer  
[NASA-CASE-GSC-11868-1] c 17 N78-22245
- PARESCHE, F.**  
Resistive anode image converter  
[NASA-CASE-HQN-10876-1] c 33 N76-27473
- PARK, J. J.**  
Method of making tubes Patent  
[NASA-CASE-XGS-04175] c 15 N71-18579
- Coated flexible laminate and method of its production  
[NASA-CASE-GSC-12913-1] c 27 N84-24807
- PARKER, D. L.**  
Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction  
[NASA-CASE-MFS-23315-1] c 76 N78-24950
- PARKER, G. L.**  
Elimination of frequency shift in a multiplex communication system Patent  
[NASA-CASE-XNP-01306] c 07 N71-20814
- High speed phase detector Patent  
[NASA-CASE-XNP-01308-2] c 09 N71-24596
- Optical binocular scanning apparatus  
[NASA-CASE-NPO-11002] c 14 N72-22441
- Hydraulic drain means for servo-systems  
[NASA-CASE-NPO-10316-1] c 37 N77-22479
- PARKER, J. A.**  
Intumescent paints Patent  
[NASA-CASE-ARC-10099-1] c 18 N71-15469
- Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10098-1] c 06 N71-24739
- Flexible fire retardant foam  
[NASA-CASE-ARC-10180-1] c 28 N72-20767
- Intumescent composition, foamed product prepared therewith, and process for making same  
[NASA-CASE-ARC-10304-1] c 18 N73-26572
- Flexible fire retardant polysocyanate modified neoprene foam  
[NASA-CASE-ARC-10180-1] c 27 N74-12814
- Chromato-fluorographic drug detector  
[NASA-CASE-ARC-10633-1] c 25 N74-26947
- Intumescent composition, foamed product prepared therewith and process for making same  
[NASA-CASE-ARC-10304-2] c 27 N74-27037
- Fiber modified polyurethane foam for ballistic protection  
[NASA-CASE-ARC-10714-1] c 27 N78-15310
- Transparent fire resistant polymeric structures  
[NASA-CASE-ARC-10813-1] c 27 N78-16230
- Honeycomb-laminate composite structure  
[NASA-CASE-ARC-10913-1] c 24 N78-15180
- Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-2] c 24 N78-27184
- Low density bismaleimide-carbon microballoon composites  
[NASA-CASE-ARC-11040-1] c 24 N79-16915
- Phosphorus-containing bismide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272
- Phthalocyanine polymers  
[NASA-CASE-ARC-11413-1] c 27 N83-14275
- Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854
- Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322
- Process for preparing phthalocyanine polymers  
[NASA-CASE-ARC-11511-1] c 23 N84-16259
- Amine terminated bisaspartimides, process for preparation thereof, and polymers thereof  
[NASA-CASE-ARC-11421-1] c 27 N84-16340
- Vinyl styrylpyridines and their copolymerization with bismaleimide resins  
[NASA-CASE-ARC-11429-1-CU] c 27 N84-16341
- Fire and heat resistant laminating resins based on maleimide substituted aromatic cyclotriphosphazenes  
[NASA-CASE-ARC-11428-1] c 24 N84-22697
- Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-3] c 27 N84-22745
- Metal phthalocyanine polymers  
[NASA-CASE-ARC-11405-1] c 27 N84-27884
- Fire blocking systems for aircraft seat cushions  
[NASA-CASE-ARC-11423-1] c 03 N84-33394
- PARKER, L. C.**  
Safe-arm initiator Patent  
[NASA-CASE-LAR-10372] c 09 N71-18599
- Inflight IFR procedures simulator  
[NASA-CASE-KSC-11218-1] c 09 N82-29331
- PARKER, O. J.**  
Despin weight release Patent  
[NASA-CASE-XLA-00679] c 15 N70-38601
- Spacecraft separation system for spinning vehicles and/or payloads Patent  
[NASA-CASE-XLA-02132] c 31 N71-10582
- Flared tube strainer  
[NASA-CASE-XLA-05056] c 15 N72-11389

- PARKER, R. J.**  
Method of improving the reliability of a rolling element system Patent  
[NASA-CASE-XLE-02969] c 15 N71-16052
- Low mass rolling element for bearings  
[NASA-CASE-LEW-11087-1] c 15 N73-30458
- Method of making rolling element bearings  
[NASA-CASE-LEW-11087-2] c 37 N74-15128
- Hollow rolling element bearings  
[NASA-CASE-LEW-11087-3] c 37 N74-21064
- PARMLEY, R. T.**  
Aerodynamic protection for space flight vehicles Patent  
[NASA-CASE-XNP-02507] c 31 N71-17679
- PARR, R. A.**  
Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown  
[NASA-CASE-MFS-23816-1] c 26 N80-23419
- PARRA, G. T.**  
Angle detector  
[NASA-CASE-ARC-11038-1] c 35 N78-32395
- Electronic scanning pressure measuring system and transducer package  
[NASA-CASE-ARC-11381-1] c 35 N84-22934
- PARSONS, W. E.**  
Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15566
- Percutaneous connector device  
[NASA-CASE-KSC-10849-1] c 52 N77-14738
- PARTHASARATHY, S. P.**  
System and method for obtaining wide screen Schlieren photographs  
[NASA-CASE-NPO-14174-1] c 74 N79-20856
- System for detecting substructure microfractures and method therefor  
[NASA-CASE-NPO-14192-1] c 39 N80-10507
- System for plotting subsurface structure and method therefor  
[NASA-CASE-NPO-14191-1] c 31 N80-32584
- Carbon granule probe microphone for leak detection  
[NASA-CASE-NPO-18027-1] c 33 N83-29595
- PARTSCH, V. M.**  
Purge device for thrust engines Patent  
[NASA-CASE-XMS-04826] c 28 N71-28849
- PASCIUTTI, E. R.**  
Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N69-25146
- Inverter with means for base current shaping for sweeping charge carriers from base region Patent  
[NASA-CASE-XGS-06226] c 10 N71-25950
- A dc to ac to dc converter having transistor synchronous rectifiers  
[NASA-CASE-GSC-11126-1] c 09 N72-25253
- PASIERB, E. F.**  
GaAs solar detector using manganese as a doping agent Patent  
[NASA-CASE-XNP-01328] c 26 N71-18064
- PASSMAN, H. M.**  
Heat conductive resiliently compressible structure for space electronics package modules Patent  
[NASA-CASE-MSC-12389] c 33 N71-29052
- PATE, W. E.**  
Color perception tester  
[NASA-CASE-KSC-10278] c 05 N72-16015
- PATEL, B. C.**  
Method and technique for installing light-weight, fragile, high-temperature fiber insulation  
[NASA-CASE-MSC-16934-3] c 24 N84-16262
- PATER, R. H.**  
Improved high temperature resistant polyimides  
[NASA-CASE-LEW-13884-1] c 27 N83-17715
- PATON, W. J.**  
Flammability test chamber Patent  
[NASA-CASE-KSC-10126] c 11 N71-24985
- PATTEE, H. E.**  
Attaching of strain gages to substrates  
[NASA-CASE-FRC-10093-1] c 35 N80-20560
- PATTEN, C. W.**  
Method and apparatus for attaching physiological monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293
- PATTERSON, J. C., JR.**  
Wingtip vortex dissipator for aircraft  
[NASA-CASE-LAR-11845-1] c 02 N77-10001
- Wingtip vortex turbine  
[NASA-CASE-LAR-12544-1] c 07 N81-27096
- Wingtip vortex propeller  
[NASA-CASE-LAR-13019-1] c 02 N84-20495
- PATTERSON, W. J.**  
Synthesis of siloxane-containing epoxy polymers Patent  
[NASA-CASE-MFS-13994-1] c 06 N71-11240
- Siloxane containing epoxide compounds  
[NASA-CASE-MFS-13994-2] c 06 N72-25148



- Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979] c 06 N72-25151
- Polymerizable disilanes having in-chain perfluoroalkyl groups  
[NASA-CASE-MFS-20979-2] c 06 N73-32030
- PAULI, F. A.  
Altitude controls for VTOL aircraft Patent  
[NASA-CASE-XAC-08972] c 02 N71-20570
- PAULKOVICH, J.  
Apparatus for measuring current flow Patent  
[NASA-CASE-XGS-02439] c 14 N71-19431
- Coulometer and third electrode battery charging circuit Patent  
[NASA-CASE-GSC-10487-1] c 03 N71-24719
- Buck/boost regulator  
[NASA-CASE-GSC-12360-1] c 33 N81-19392
- Non-contacting power transfer device  
[NASA-CASE-GSC-12595-1] c 33 N82-24422
- PAULL, S.  
Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00458] c 09 N70-38604
- Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00131] c 09 N70-38995
- PAVLICS, F.  
Resilient wheel Patent  
[NASA-CASE-MFS-13929] c 15 N71-27091
- PAWLIK, E. V.  
Plasma device feed system Patent  
[NASA-CASE-XLE-02902] c 25 N71-21694
- Ion thruster with a combination keeper electrode and electron baffle  
[NASA-CASE-NPO-11880] c 28 N73-24783
- Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371
- PAWLOWSKI, J. F.  
Method and apparatus for receiving and tracking phase modulated signals  
[NASA-CASE-MSC-16170-2] c 32 N84-27952
- PEARSON, A. O.  
Measurement of gas production of microorganisms  
[NASA-CASE-LAR-11326-1] c 35 N75-33368
- PEASE, R. E.  
Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768
- PECHMAN, A.  
Two-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-1] c 27 N76-22377
- Three-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-2] c 27 N76-23426
- PECK, S. R.  
Voltage feed through apparatus having reduced partial discharge  
[NASA-CASE-GSC-12347-1] c 33 N80-18286
- PECKHAM, V. A., JR.  
Sample collecting impact bit Patent  
[NASA-CASE-XNP-01412] c 15 N70-42034
- PEDERSON, C. W.  
Low distortion automatic phase control circuit  
[NASA-CASE-MFS-21671-1] c 33 N74-22885
- PEELGREN, M. L.  
Shell side liquid metal boiler  
[NASA-CASE-NPO-10831] c 33 N72-20915
- PEER, C. R.  
Connector strips-positive, negative and T tabs  
[NASA-CASE-XGS-01395] c 03 N69-21539
- PEGDEM, C. D.  
Multiple in-line docking capability for rotating space stations  
[NASA-CASE-MFS-20855-1] c 15 N77-10112
- PELCHAT, G. M.  
Adaptive polarization separation  
[NASA-CASE-LAR-12196-1] c 33 N81-26358
- PELISCHEK, T. E.  
Foldable self-erecting joint  
[NASA-CASE-MSC-20635-1] c 18 N84-32424
- PELLERIN, C. J., JR.  
Two axis fluxgate magnetometer Patent  
[NASA-CASE-GSC-10441-1] c 14 N71-27325
- PENKO, P. F.  
Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425
- PENNI, B. G.  
Process for producing tris (N-methylamino) methylsilane  
[NASA-CASE-MFS-25721-1] c 25 N83-25811
- PENQUE, N. J.  
Varactor high level mixer  
[NASA-CASE-XGS-02171] c 09 N69-24324
- PEOPLES, J. A.  
Multway vortex valve system Patent  
[NASA-CASE-XMF-04709] c 15 N71-15609
- PERKINS, G. S.  
Detentling servomotor Patent  
[NASA-CASE-XNP-06936] c 15 N71-24695
- Ball screw linear actuator  
[NASA-CASE-NPO-11222] c 15 N72-25456
- Sun tracking solar energy collector  
[NASA-CASE-NPO-13921-1] c 44 N79-14526
- Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371
- Low noise lead screw positioner  
[NASA-CASE-NPO-15617-1] c 35 N82-33681
- PERKINS, H.  
System for imposing directional stability on a rocket-propelled vehicle  
[NASA-CASE-MFS-21311-1] c 20 N76-21275
- PERKINS, P. J., JR.  
Cryogenic insulation system Patent  
[NASA-CASE-XLE-04222] c 23 N71-22881
- Insulation system Patent  
[NASA-CASE-XLE-02647] c 18 N71-23658
- PERLMAN, M.  
Linear three-tap feedback shift register Patent  
[NASA-CASE-NPO-10351] c 08 N71-12503
- Binary sequence detector Patent  
[NASA-CASE-XNP-05415] c 08 N71-12505
- Digital function generator  
[NASA-CASE-NPO-11104] c 08 N72-22165
- Feedback shift register with states decomposed into cycles of equal length  
[NASA-CASE-NPO-11082] c 08 N72-22167
- Pseudonoise sequence generators with three tap linear feedback shift registers  
[NASA-CASE-NPO-11406] c 08 N73-12175
- A m-ary linear feedback shift register with binary logic  
[NASA-CASE-NPO-11868] c 10 N73-20254
- System for generating timing and control signals  
[NASA-CASE-NPO-13125-1] c 33 N75-19519
- Nonlinear nonsingular feedback shift registers  
[NASA-CASE-NPO-13451-1] c 33 N76-14373
- PERLMUTTER, M.  
Device for directionally controlling electromagnetic radiation Patent  
[NASA-CASE-XLE-01716] c 09 N70-40234
- PERRY, C. L.  
Metabolic analyzer  
[NASA-CASE-MFS-21415-1] c 52 N74-20728
- PERRY, G. D.  
Zero gravity apparatus Patent  
[NASA-CASE-XMF-06515] c 14 N71-23227
- PERRY, J. C.  
System for a displaying at a remote station data generated at a central station and for powering the remote station from the central station  
[NASA-CASE-GSC-12411-1] c 33 N81-14221
- PERRY, W. E.  
Optical conversion method  
[NASA-CASE-MSC-12618-1] c 74 N78-17885
- PERSON, J. K.  
Bonding machine for forming a solar array strip  
[NASA-CASE-NPO-13652-2] c 44 N79-24431
- PESEK, C. T.  
Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02184] c 15 N71-20813
- Circuit board package with wedge shaped covers  
[NASA-CASE-MFS-21918-1] c 10 N73-25243
- PESMAN, G. J.  
Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152
- PETERS, D. A.  
Hingeless helicopter rotor with improved stability  
[NASA-CASE-ARC-10807-1] c 05 N77-17029
- PETERS, H. E.  
Atomic standard with variable storage volume  
[NASA-CASE-GSC-11895-1] c 35 N76-15438
- PETERS, L., JR.  
Horn antenna having V-shaped corrugated slots  
[NASA-CASE-LAR-11112-1] c 32 N76-15330
- PETERS, P. H.  
Germanium coated microbridge and method  
[NASA-CASE-MFS-23274-1] c 33 N78-13320
- PETERS, R. L.  
CRT blanking and brightness control circuit  
[NASA-CASE-KSC-10647-1] c 10 N72-31273
- PETERS, R. W.  
Two component bearing Patent  
[NASA-CASE-XLA-00013] c 15 N71-29136
- PETERSEN, G. R.  
Thermochemical generation of hydrogen  
[NASA-CASE-NPO-15015-1] c 25 N82-28368
- Enhancement of in vitro guayule propagation  
[NASA-CASE-NPO-15213-1] c 51 N83-17045
- PETERSEN, H. L.  
Four phase logic systems  
[NASA-CASE-MSC-14240-1] c 33 N75-14957
- PETERSEN, H. W.  
Adjustable mount for a trihedral mirror Patent  
[NASA-CASE-XNP-08907] c 23 N71-29123
- PETERSON, E. W.  
Canopus detector including automotive gain control of photomultiplier tube Patent  
[NASA-CASE-XNP-03914] c 21 N71-10771
- PETERSON, N. C.  
Ultraviolet atomic emission detector  
[NASA-CASE-HQN-10756-1] c 14 N72-25428
- PETERSON, N. E., JR.  
Shrink-fit gas valve Patent  
[NASA-CASE-XGS-00587] c 15 N70-35087
- PETERSON, P. D.  
Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203
- PETERSON, S. A.  
Reusable captive blind fastener  
[NASA-CASE-MSC-18742-1] c 37 N82-26673
- PETERSON, S. T.  
Meteoroid detector  
[NASA-CASE-LAR-10483-1] c 14 N73-32327
- PETERSON, V. S.  
Flow angle sensor and read out system Patent  
[NASA-CASE-XLE-04503] c 14 N71-24864
- Solid state remote circuit selector switch  
[NASA-CASE-LEW-10387] c 09 N72-22201
- Low level signal limiter  
[NASA-CASE-XLE-04791] c 32 N74-22096
- Fine particulate capture device  
[NASA-CASE-LEW-11583-1] c 35 N79-17192
- PETERSON, W. A.  
Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550
- Superconducting magnet Patent  
[NASA-CASE-XNP-06503] c 23 N71-29049
- PETERSON, W. D.  
Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent  
[NASA-CASE-XMF-08665] c 10 N71-19467
- PETERSEN, H. E.  
Medical subject monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757
- PETRASEK, D. W.  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288
- Method of making fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198
- Reinforced metallic composites Patent  
[NASA-CASE-XLE-00228] c 17 N70-38490
- Method of making fiber composites  
[NASA-CASE-LEW-10424-2-2] c 18 N72-25539
- PETRICK, E. N.  
Variable thrust ion engine utilizing thermally decomposable solid fuel Patent  
[NASA-CASE-XMF-00923] c 28 N70-36802
- PETRICK, S. W.  
Radiative cooler  
[NASA-CASE-NPO-15465-1] c 34 N84-22903
- PETYNIA, W. W.  
Space and atmospheric reentry vehicle Patent  
[NASA-CASE-XGS-00260] c 31 N70-37924
- Space vehicle system  
[NASA-CASE-MSC-12561-1] c 18 N76-17185
- PEYTON, J.  
Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346
- PEZDIRTZ, G. F.  
Method and apparatus for shock protection Patent  
[NASA-CASE-XLA-00482] c 15 N70-36409
- Imidazopyrrolone/imide copolymers Patent  
[NASA-CASE-XLA-08802] c 06 N71-11238
- Dosimeter for high levels of absorbed radiation Patent  
[NASA-CASE-XLA-03845] c 14 N71-20430
- Solid state thermal control polymer coating Patent  
[NASA-CASE-XLA-01745] c 33 N71-28903
- PFAFF, H.  
Swivel support for gas bearings Patent  
[NASA-CASE-XMF-07808] c 15 N71-23812
- PIFFNER, H. J.  
Bootstrap unloader Patent  
[NASA-CASE-XNP-09768] c 09 N71-12516
- PFLEGER, R. O.  
Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937
- PFLUGER, H. L.  
Process of treating cellulosic membrane and alkaline with membrane separator  
[NASA-CASE-GSC-10019-1] c 44 N82-24641
- Separator for alkaline batteries and method of making same  
[NASA-CASE-GSC-10350-1] c 44 N82-24642
- Separator for alkaline electric cells and method of making  
[NASA-CASE-GSC-10017-1] c 44 N82-24643

- Separator for alkaline electric batteries and method of making  
[NASA-CASE-GSC-10018-1] c 44 N82-24644
- Alkaline electrochemical cells and method of making  
[NASA-CASE-GSC-10349-1] c 44 N82-24645
- Aqueous alkali metal hydroxide insoluble cellulose ether membrane  
[NASA-CASE-XGS-05584-1] c 25 N82-29370
- PHELPS, A. E.**  
Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400
- PHILIPP, W. H.**  
Selective nickel deposition  
[NASA-CASE-LEW-10965-1] c 15 N72-25452
- Production of pure metals  
[NASA-CASE-LEW-10906-1] c 25 N74-30502
- Process for making anhydrous metal halides  
[NASA-CASE-LEW-11860-2] c 37 N78-18458
- In situ self cross-linking of polyvinyl alcohol battery separators  
[NASA-CASE-LEW-12972-1] c 44 N79-25481
- In-situ cross linking of polyvinyl alcohol  
[NASA-CASE-LEW-13135-2] c 27 N81-24257
- Cross-linked polyvinyl alcohol and method of making same  
[NASA-CASE-LEW-13101-2] c 23 N81-29160
- Alkaline battery containing a separator of a cross-linked copolymer of vinyl alcohol and unsaturated carboxylic acid  
[NASA-CASE-LEW-13102-1] c 44 N81-29531
- PHILLIPS, A. R.**  
Technique of duplicating fragile core  
[NASA-CASE-XLA-07829] c 15 N72-16329
- PHILLIPS, W. H.**  
Method of cross-linking polyvinyl alcohol and other water soluble resins  
[NASA-CASE-LEW-13103-1] c 27 N80-32516
- PHILLIPS, B. L. S.**  
File card marker Patent  
[NASA-CASE-XLA-02705] c 08 N71-15908
- PHILLIPS, E. C., JR.**  
Method of forming a wick for a heat pipe  
[NASA-CASE-NPO-13391-1] c 34 N78-27515
- PHILLIPS, W. H.**  
Variable-geometry winged reentry vehicle Patent  
[NASA-CASE-XLA-00241] c 31 N70-37988
- Station keeping of a gravity gradient stabilized satellite Patent  
[NASA-CASE-XLA-03132] c 31 N71-22969
- Rim inertial measuring system  
[NASA-CASE-LAR-12052-1] c 18 N81-29152
- Solar powered aircraft  
[NASA-CASE-LAR-12615-1] c 05 N84-12154
- PHILLIPS, W. M.**  
Shell side liquid metal boiler  
[NASA-CASE-NPO-10831] c 33 N72-20915
- Cermet composition and method of fabrication  
[NASA-CASE-NPO-13120-1] c 27 N78-15311
- High temperature oxidation resistant cermet compositions  
[NASA-CASE-NPO-13866-1] c 27 N77-13217
- Nuclear thermionic converter  
[NASA-CASE-NPO-13121-1] c 73 N77-18891
- High temperature resistant cermet and ceramic compositions  
[NASA-CASE-NPO-13890-1] c 27 N78-18302
- High temperature resistant cermet and ceramic compositions  
[NASA-CASE-NPO-13890-2] c 27 N78-14213
- Sandblasting nozzle  
[NASA-CASE-NPO-13823-1] c 37 N81-25371
- PHILIEGER, G. A., JR.**  
Separation simulator Patent  
[NASA-CASE-XKS-04631] c 10 N71-23663
- Internal work light Patent  
[NASA-CASE-XKS-05932] c 09 N71-26787
- Universal environment package with sectional component housing  
[NASA-CASE-KSC-10031] c 15 N72-22486
- Pressurized lighting system  
[NASA-CASE-KSC-10644] c 09 N72-27227
- PIASECKI, L. R.**  
Apparatus and method for control of a solid fueled rocket vehicle Patent  
[NASA-CASE-XNP-00217] c 28 N70-38181
- PICCILOLO, G. L.**  
Flavin coenzyme assay  
[NASA-CASE-GSC-10565-1] c 06 N72-25149
- Method of detecting and counting bacteria in body fluids  
[NASA-CASE-GSC-11092-2] c 04 N73-27052
- Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions  
[NASA-CASE-GSC-11169-2] c 05 N73-32011

- Method of detecting and counting bacteria  
[NASA-CASE-GSC-11917-2] c 51 N78-29891
- Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794
- Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12048-1] c 52 N79-14750
- Rapid, quantitative determination of bacteria in water  
[NASA-CASE-GSC-12158-1] c 51 N83-27569
- PICHAICHANARONG, P.**  
Supercritical multicomponent solvent coal extraction  
[NASA-CASE-NPO-15787-1] c 23 N84-16255
- PIERCE, R. M.**  
Propellant grain for rocket motors Patent  
[NASA-CASE-XGS-03556] c 27 N70-35534
- PINCNEY, K. R.**  
System for monitoring the presence of neutrals in a stream of ions Patent  
[NASA-CASE-XNP-02592] c 24 N71-20518
- PINCNEY, B. Z.**  
Static pressure probe  
[NASA-CASE-LAR-11552-1] c 35 N78-14429
- PINCUS, B. R.**  
Scanning aspect sensor employing an apertured disc and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432
- PINKEL, I. I.**  
Reduced gravity liquid configuration simulator  
[NASA-CASE-XLE-02624] c 12 N69-39988
- PINSON, G. T.**  
Guide for a typewriter  
[NASA-CASE-MFS-15218-1] c 37 N77-19457
- PIPPEN, D. L.**  
High voltage pulse generator Patent  
[NASA-CASE-MSC-12178-1] c 09 N71-13518
- PITELLI, E. E.**  
Transverse piezoresistance and pinch effect electromechanical transducers Patent  
[NASA-CASE-ERC-10088] c 26 N71-25490
- PITTS, D. E.**  
Method for manufacturing mirrors in zero gravity environment  
[NASA-CASE-MSC-12611-1] c 12 N78-15189
- PITTS, F. L.**  
Electronic strain-level counter  
[NASA-CASE-LAR-10756-1] c 32 N73-26910
- PITTS, W. C.**  
Two force component measuring device Patent  
[NASA-CASE-XAC-04886-1] c 14 N71-20439
- PIVIOTTO, T. J.**  
Inert gas metallic vapor laser  
[NASA-CASE-NPO-13449-1] c 38 N75-32441
- High power metallic halide laser  
[NASA-CASE-NPO-14782-1] c 38 N82-26816
- Method and apparatus for convection control of metallic halide vapor density in a metallic halide laser  
[NASA-CASE-NPO-15021-1] c 38 N83-10417
- PIZZECK, D. E.**  
Connector  
[NASA-CASE-LAR-11709-1] c 37 N78-27567
- PLAKAS, C. J.**  
Fifty pump-metering system  
[NASA-CASE-GSC-10218-1] c 15 N72-21465
- PLAMONDON, J. A., JR.**  
Conically shaped cavity radiometer with a dual purpose cone winding Patent  
[NASA-CASE-XNP-09701] c 14 N71-26475
- PLAMOWSKI, S. C.**  
Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692
- PLATT, P. K.**  
Cryogenic connector for vacuum use Patent  
[NASA-CASE-XGS-02441] c 15 N70-41629
- PLAZEK, D. J.**  
Instrument for measuring torsional creep and recovery Patent  
[NASA-CASE-XLE-01481] c 14 N71-10781
- PLEASANTS, J. E.**  
Inflatable support structure Patent  
[NASA-CASE-XLA-01731] c 32 N71-21045
- Vortex breach high pressure gas generator  
[NASA-CASE-LAR-10549-1] c 31 N73-13898
- PLITT, K. F.**  
Spacecraft battery seals  
[NASA-CASE-XGS-03864] c 15 N69-24320
- PODGORSKI, T. J.**  
Method of forming shrink-fit compression seal  
[NASA-CASE-LAR-11583-1] c 37 N77-23482
- POESCHEL, R. L.**  
Ion thruster  
[NASA-CASE-LEW-10770-1] c 28 N72-22770
- POGORZELSKI, F. S.**  
Apparatus for welding sheet material  
[NASA-CASE-XMS-01330] c 37 N75-27376

- POHL, H. O.**  
Two-step rocket engine bipropellant valve Patent  
[NASA-CASE-XMS-04890-1] c 15 N70-22192
- POHL, J. G.**  
Three-dimensional tracking solar energy concentrator and method for making same  
[NASA-CASE-NPO-13738-1] c 44 N77-32583
- Portable linear-focused solar thermal energy collecting system  
[NASA-CASE-NPO-13734-1] c 44 N78-10554
- POHLM, A. V.**  
Magnetometer with a miniature transducer and automatic scanning  
[NASA-CASE-LAR-11817-2] c 35 N78-32397
- POLHAMUS, E. C.**  
Variable sweep wing configuration Patent  
[NASA-CASE-XLA-00230] c 02 N70-33255
- Variable sweep aircraft wing Patent  
[NASA-CASE-XLA-00350] c 02 N70-38011
- Variable sweep aircraft Patent  
[NASA-CASE-XLA-03659] c 02 N71-11041
- POLHEMUS, J. T.**  
Condition sensor system and method  
[NASA-CASE-MSC-14805-1] c 54 N78-32720
- Pulse transducer with artifact signal attenuator  
[NASA-CASE-FRC-11012-1] c 52 N80-23969
- POLLACK, I.**  
Etching of aluminum for bonding Patent  
[NASA-CASE-XMF-02303] c 17 N71-23828
- Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170
- POLLACK, J. L.**  
High powered arc electrodes  
[NASA-CASE-LEW-11162-1] c 33 N74-12913
- POLLARD, R. A.**  
Rescue litter flotation assembly Patent  
[NASA-CASE-XMS-04170] c 05 N71-22748
- POLLOCK, G. E.**  
Sonic levitation injection system  
[NASA-CASE-LAR-10344-2] c 35 N75-26334
- POLSTORFF, W. K.**  
Simulator method and apparatus for practicing the mating of an observer-controlled object with a target  
[NASA-CASE-MFS-23052-2] c 74 N79-13855
- POMPLUM, A. R.**  
Sonic levitation apparatus  
[NASA-CASE-MFS-25828-1] c 71 N84-28568
- POOL, S. L.**  
Medical subject monitoring systems  
[NASA-CASE-MSC-14160-1] c 52 N78-14757
- POOLE, B. D., JR.**  
Miniature spectrally selective dosimeter  
[NASA-CASE-LAR-12469-1] c 35 N83-21311
- POORMAN, R. M.**  
Exothermic furnace module  
[NASA-CASE-MFS-25707-1] c 35 N82-26831
- POPE, A. M.**  
Zero gravity separator Patent  
[NASA-CASE-XLE-00588] c 15 N71-15968
- POPE, J. M.**  
Miniature ingestible telemeter devices to measure deep-body temperature  
[NASA-CASE-ARC-10583-1] c 52 N78-26894
- POPE, W. L.**  
Low gravity phase separator  
[NASA-CASE-MSC-14773-1] c 35 N78-12390
- POPICK, H.**  
Laser apparatus for removing material from rotating objects Patent  
[NASA-CASE-MFS-11279] c 16 N71-20400
- POPINSKI, Z.**  
Automotive absorption air conditioner utilizing solar and motor waste heat  
[NASA-CASE-NPO-15183-1] c 44 N82-26776
- POPMA, D. C.**  
Recovery of potable water from human wastes in below-G conditions Patent  
[NASA-CASE-XLA-03213] c 05 N71-11207
- PORADEK, J. C.**  
Process for conditioning tanned sharkskin and articles made therefrom Patent  
[NASA-CASE-XMS-09691-1] c 18 N71-15545
- Simultaneous treatment of SO<sub>2</sub> containing stack gases and waste water  
[NASA-CASE-MSC-16258-1] c 45 N79-12584
- PORTER, A. C.**  
Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903
- PORTER, E. E.**  
Spray coating apparatus having a rotatable workplace holder  
[NASA-CASE-ARC-11110-1] c 37 N82-24492
- PORTER, R. M.**  
Liquid rocket system Patent  
[NASA-CASE-XNP-00610] c 28 N70-36910

- Zero gravity starting means for liquid propellant motors  
Patent  
[NASA-CASE-XNP-01390] c 28 N70-41275  
Force-balanced, throttle valve Patent  
[NASA-CASE-NPO-10808] c 15 N71-27432
- PORTER, W. A.**  
Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction  
[NASA-CASE-MFS-23315-1] c 78 N78-24950
- PORTNOY, W. A.**  
Insulated electrocardiographic electrodes  
[NASA-CASE-MSC-14339-1] c 05 N75-24716
- PORTWOOD, J. N.**  
Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-18903
- POSCHENRIEDER, W. P.**  
Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent  
[NASA-CASE-LAR-10180-1] c 06 N71-13461
- POSEY, D. L.**  
Static pressure orifice system testing method and apparatus  
[NASA-CASE-LAR-12269-1] c 35 N80-18358
- POSHKUS, A. C.**  
An improved synthesis of 2,4,8,10-tetroxaspiro (5.5) undecane  
[NASA-CASE-ARC-11243-2] c 23 N80-31472  
Synthesis of polyformals  
[NASA-CASE-ARC-11244-1] c 23 N82-16174
- POSNER, E. C.**  
Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680  
Data compressor Patent  
[NASA-CASE-XNP-04067] c 08 N71-22707  
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system  
[NASA-CASE-NPO-11302-1] c 07 N73-13149  
Method and apparatus for a single channel digital communications system  
[NASA-CASE-NPO-11302-2] c 32 N74-10132
- POST, R. E.**  
Method of making a light weight battery plaque  
[NASA-CASE-LEW-13349-1] c 26 N84-22734
- POSTMA, R. W.**  
Thrust measurement  
[NASA-CASE-XMS-05731] c 35 N75-29382
- POTATE, W. B.**  
Multiparameter vision testing apparatus  
[NASA-CASE-MSC-13601-2] c 54 N75-27759
- POTTER, A. E., JR.**  
Multispectral imaging system  
[NASA-CASE-MSC-12404-1] c 23 N73-13661
- POTTER, L. R.**  
Thermocouple installation  
[NASA-CASE-NPO-13540-1] c 35 N77-14409
- POTTER, M. H.**  
Method and apparatus for battery charge control Patent  
[NASA-CASE-XGS-05432] c 03 N71-19438
- POTTER, P. D.**  
Cassegrainian antenna subreflector flange for suppressing ground noise Patent  
[NASA-CASE-XNP-00683] c 09 N70-35425  
Dual mode horn antenna Patent  
[NASA-CASE-XNP-01057] c 07 N71-15907  
Dichroic plate  
[NASA-CASE-NPO-13506-1] c 35 N76-15435
- POUCHOT, W. D.**  
Self-adjusting multisegment, deployable, natural circulation radiator Patent  
[NASA-CASE-XHQ-03673] c 33 N71-29046
- POULSEN, P. D.**  
Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768
- POVINELLI, L. A.**  
Burning rate control of solid propellants Patent  
[NASA-CASE-XLE-03494] c 27 N71-21819
- POWELL, C. A., JR.**  
Instrument for measuring the dynamic behavior of liquids Patent  
[NASA-CASE-XLA-05541] c 12 N71-26387
- POWELL, J. A.**  
Process for fabricating SiC semiconductor devices  
[NASA-CASE-LEW-12094-1] c 78 N76-25049
- POWELL, J. D.**  
Iodine generator for reclaimed water purification  
[NASA-CASE-MSC-14832-1] c 54 N78-14784
- POWELL, W. B.**  
Thermocouple installation  
[NASA-CASE-NPO-13540-1] c 35 N77-14409
- POWELL, W. E., JR.**  
Target acquisition antenna  
[NASA-CASE-GSC-10064-1] c 10 N72-22235
- POWER, J. L.**  
Ion beam thruster shield  
[NASA-CASE-LEW-12082-1] c 20 N77-10148
- POWERS, E. I.**  
Thermal control system for a spacecraft modular housing  
[NASA-CASE-GSC-11018-1] c 31 N73-30829
- POZSONY, E. R.**  
Apparatus and method for skin packaging articles  
[NASA-CASE-MFS-20855] c 15 N73-27405
- PRASTHOFER, W. P.**  
Controlled overspray spray nozzle  
[NASA-CASE-MFS-25139-1] c 34 N82-13376  
Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297
- PRELIASCO, R. J.**  
Articulated joint for deployable structures  
[NASA-CASE-NPO-16038-1] c 37 N83-20157
- PRESCOTT, W. A.**  
Liquid-gas separation system Patent  
[NASA-CASE-XMS-01824] c 15 N70-40082
- PRESLEY, L. L.**  
Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156
- PRESTON, Q. M.**  
Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15586
- PRESTON, G. W.**  
Satellite communication system Patent  
[NASA-CASE-XNP-02389] c 07 N71-28900
- PRICE, A. G.**  
Attitude sensor  
[NASA-CASE-LAR-10586-1] c 19 N74-15089
- PRICE, H. W.**  
Gravity gradient attitude control system Patent  
[NASA-CASE-GSC-10555-1] c 21 N71-27324
- PRICE, P.**  
Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730
- PRICE, S. B.**  
Surface roughness detector Patent  
[NASA-CASE-XLA-00203] c 14 N70-34161
- PRIDE, J. D., JR.**  
Remote controlled tubular disconnect Patent  
[NASA-CASE-XLA-01396] c 03 N71-12259
- PRIEBE, G. W.**  
Relief container  
[NASA-CASE-XMS-06761] c 05 N69-23192
- PRIOLETTI, J. A.**  
Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01809] c 14 N71-10500
- PRITCHARD, E. B.**  
Orbital and entry tracking accessory for globes  
[NASA-CASE-LAR-10620-1] c 19 N74-21015
- PRITCHARD, H. O.**  
Reduction of nitric oxide emissions from a combustor  
[NASA-CASE-ARC-10814-2] c 07 N80-26298
- PROCH, G. E.**  
Digital transmitter for data bus communications system  
[NASA-CASE-MSC-14558-1] c 32 N75-21486  
Low distortion receiver for bi-level baseband PCM waveforms  
[NASA-CASE-MSC-14557-1] c 32 N76-18249
- PROMSEY, J. H.**  
Method for making a heat insulating and ablative structure  
[NASA-CASE-XMS-01108] c 15 N69-24322
- PROFFIT, R. L.**  
Hydrogen fire detection system with logic circuit to analyze the spectrum of temporal variations of the optical spectrum  
[NASA-CASE-MFS-13130] c 10 N72-17173
- PROGAR, D. J.**  
Process for applying black coating to metals Patent  
[NASA-CASE-XLA-06189] c 15 N71-24875  
Polyimide adhesives  
[NASA-CASE-LAR-11397-1] c 27 N75-29263  
Polyimide adhesives  
[NASA-CASE-LAR-12181-1] c 27 N78-17205  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044  
Hot melt recharge system  
[NASA-CASE-LAR-12881-1] c 27 N84-14323
- PROK, G. M.**  
Apparatus for making a metal slurry product Patent  
[NASA-CASE-XLE-00010] c 15 N70-33382
- PROKOPIUS, P. R.**  
Flow measuring apparatus  
[NASA-CASE-LEW-12078-1] c 35 N75-30503
- PRUETT, B. J.**  
Apparatus for testing a pressure responsive instrument Patent  
[NASA-CASE-XMF-04134] c 14 N71-23755
- PRUETT, E. C.**  
Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303
- PRYOR, D. E.**  
Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708
- PRYOR, P. P., JR.**  
Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421
- PRZYBYSGZEWSKI, J. B.**  
Method and apparatus for sputtering utilizing an apertured electrode and a pulsed substrate bias  
[NASA-CASE-LEW-10920-1] c 17 N73-24569  
Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338
- PSALTIS, D.**  
Ranging system  
[NASA-CASE-NPO-15885-1] c 74 N83-12991
- PSARRAS, T.**  
Perfluoroalkyl polytriazines containing pendent iododifluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016
- PUCCINELLI, A. A.**  
Three-axis controller Patent  
[NASA-CASE-XAC-01404] c 05 N70-41581  
Transfer valve Patent  
[NASA-CASE-XAC-01158] c 15 N71-23051
- PUCILLO, G. L.**  
Integrated thermoelectric generator/space antenna combination  
[NASA-CASE-XER-09521] c 09 N72-12136
- PULLING, R. C.**  
Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012
- PURCELL, T. H., JR.**  
Electric storage battery  
[NASA-CASE-NPO-11021] c 03 N72-20032
- PURGOLD, G. C.**  
Automated syringe sampler  
[NASA-CASE-LAR-12308-1] c 35 N81-29407
- PUSTER, R. L.**  
A system for controlling the oxygen content of a gas produced by combustion  
[NASA-CASE-LAR-13257-1] c 25 N84-32447
- PUTNAM, D. F.**  
Electrolytic cell structure  
[NASA-CASE-LAR-11042-1] c 33 N75-27252

## Q

- QADER, S. A.**  
Solar heated fluidized bed gasification system  
[NASA-CASE-NPO-15071-1] c 44 N82-18475  
Fluidized bed coal liquefaction  
[NASA-CASE-NPO-15891-1] c 25 N83-36120  
Fluidized bed liquefaction of biomass  
[NASA-CASE-NPO-15907-1] c 25 N83-36121  
Fluidized bed gasification of biomass to methane  
[NASA-CASE-NPO-15803-1] c 44 N84-12635  
Solar-heated oil shale retort  
[NASA-CASE-NPO-16392-1] c 44 N84-32912
- QUATINETZ, M.**  
Method for producing fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-03925] c 18 N71-22894  
Gas purged dry box glove Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080  
Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142  
Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent  
[NASA-CASE-XLE-03940] c 18 N71-26153  
Refractory metal base alloy composites  
[NASA-CASE-XLE-03940-2] c 17 N72-28538
- QUATTRONE, P. D.**  
Exposure system for animals Patent  
[NASA-CASE-XAC-05333] c 11 N71-22875
- QUINN, R. B.**  
Maser for frequencies in the 7-20 GHz range  
[NASA-CASE-NPO-11437] c 18 N72-28521  
Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures  
[NASA-CASE-NPO-14254-1] c 36 N80-18372  
Resonant isolator for maser amplifier  
[NASA-CASE-NPO-15201-1] c 36 N83-35350

## R

- RADNOFSKY, M. I.**  
Life raft Patent  
[NASA-CASE-XMS-00863] c 05 N70-34857

- Shock absorbing support and restraint means Patent  
[NASA-CASE-XMS-01240] c 05 N70-35152
- Life preserver Patent  
[NASA-CASE-XMS-00864] c 05 N70-36483
- Inflatable radar reflector unit Patent  
[NASA-CASE-XMS-00893] c 07 N70-40063
- Life raft stabilizer  
[NASA-CASE-MSC-12393-1] c 02 N73-26006
- RAGGIO, C. W., JR.**  
Steerable solid propellant rocket motor Patent  
[NASA-CASE-XNP-00234] c 28 N70-38845
- RAINEY, R. W.**  
High speed flight vehicle control Patent  
[NASA-CASE-XLA-08967] c 02 N71-27088
- RAINWATER, L. L.**  
Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27191
- RAMEY, R. L.**  
Depositing semiconductor films utilizing a thermal gradient  
[NASA-CASE-XKS-04614] c 15 N69-21460
- Active microwave irises and windows  
[NASA-CASE-LAR-10513-1] c 07 N72-25170
- Thin film microwave iris  
[NASA-CASE-LAR-10511-1] c 09 N72-29172
- RAMME, F. B.**  
Flexible conductive disc electrode Patent  
[NASA-CASE-FRC-10029] c 09 N71-24618
- Method of removing insulated material from insulated wires  
[NASA-CASE-FRC-10038] c 15 N72-20444
- Method of making dry electrodes  
[NASA-CASE-FRC-10029-2] c 05 N72-25121
- RAMOHALLI, K. N. R.**  
Silicone containing solid propellant  
[NASA-CASE-NPO-14477-1] c 28 N80-28536
- RAND, J. L.**  
Thin film strain transducer  
[US-PATENT-APPL-SN-526770] c 35 N84-12448
- Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015
- RANDALL, J. C.**  
Attitude control for spacecraft Patent  
[NASA-CASE-XNP-02982] c 31 N70-41855
- RANDLE, R. J., JR.**  
Visual accommodation trainer-tester  
[NASA-CASE-ARC-11426-1] c 09 N84-12193
- RANEY, J. P.**  
Buoyant anti-slosh system Patent  
[NASA-CASE-XLA-04605] c 32 N71-16106
- RAO, D. M.**  
Aerodynamic side-force alleviator means  
[NASA-CASE-LAR-12326-1] c 02 N81-14968
- Leading edge vortex flaps for drag reduction  
[NASA-CASE-LAR-12750-1] c 02 N81-19016
- RAPOSA, F. L.**  
Parasitic suppressing circuit  
[NASA-CASE-ERC-10403-1] c 10 N73-26228
- Transformer regulated self-stabilizing chopper  
[NASA-CASE-XGS-09186] c 33 N78-17295
- RAPOZA, E. J.**  
Reversible current control apparatus Patent  
[NASA-CASE-XLA-09371] c 10 N71-18724
- RASMUSSEN, H. P.**  
Transparent switchboard  
[NASA-CASE-MSC-13746-1] c 10 N73-32143
- RASQUIN, J. R.**  
Angular measurement system Patent  
[NASA-CASE-XMF-00447] c 14 N70-33179
- Electro-optical alignment control system Patent  
[NASA-CASE-XMF-00908] c 14 N70-40238
- Laser coolant and ultraviolet filter  
[NASA-CASE-MFS-20180] c 16 N72-12440
- Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332] c 05 N72-20097
- Apparatus for making diamonds  
[NASA-CASE-MFS-20698] c 15 N72-20446
- High temperature furnace for melting materials in space  
[NASA-CASE-MFS-20710] c 11 N72-23215
- Process for making diamonds  
[NASA-CASE-MFS-20698-2] c 15 N73-19457
- Underwater space suit pressure control regulator  
[NASA-CASE-MFS-20332-2] c 05 N73-25125
- Digital computing cardiometer  
[NASA-CASE-MFS-20284-1] c 52 N74-12778
- RASSWEILER, G. G.**  
Adaptive polarization separation  
[NASA-CASE-LAR-12198-1] c 33 N81-26358
- RATAJCZAK, A. F.**  
Solar cell shingle  
[NASA-CASE-LEW-12587-1] c 44 N77-31601
- RATCLIFF, L. P.**  
Latch mechanism  
[NASA-CASE-MSC-12549-1] c 37 N74-27903
- RATHZ, T. J.**  
Method and apparatus for supercooling and solidifying substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650
- RAVAS, R. J.**  
Transistor drive regulator Patent  
[NASA-CASE-LEW-10233] c 10 N71-27126
- RAVENHALL, R.**  
Platform for a swing root turbomachinery blade  
[NASA-CASE-LEW-12312-1] c 07 N77-32148
- Impact absorbing blade mounts for variable pitch blades  
[NASA-CASE-LEW-12313-1] c 37 N78-10468
- RAVINDRAM, M.**  
Fluidized bed desulfurization  
[NASA-CASE-NPO-15924-1] c 25 N83-36122
- RAWLIN, V. K.**  
Ring-cusp ion thruster with shell anode  
[NASA-CASE-LEW-13881-1] c 72 N83-21903
- RAWSON, J.**  
Display research collision warning system  
[NASA-CASE-HQN-10703] c 21 N73-13643
- RAY, W. L.**  
Remote fire stack igniter  
[NASA-CASE-MFS-21675-1] c 25 N74-33378
- RAYBORN, G. H.**  
Low energy electron magnetometer using a monoenergetic electron beam  
[NASA-CASE-LAR-12706-1] c 35 N84-12444
- RAYLE, W. D.**  
Electric propulsion engine test chamber Patent  
[NASA-CASE-XLE-00252] c 11 N70-34844
- READ, F. G.**  
Backpack carrier Patent  
[NASA-CASE-LAR-10056] c 05 N71-12351
- READ, W. S.**  
Silent emergency alarm system for schools and the like  
[NASA-CASE-NPO-11307-1] c 10 N73-30205
- Tool for use in lifting pin supported objects  
[NASA-CASE-NPO-13157-1] c 37 N74-32918
- READER, A. F.**  
Method and apparatus for making curved reflectors Patent  
[NASA-CASE-XLE-08917] c 15 N71-15597
- Apparatus for making curved reflectors Patent  
[NASA-CASE-XLE-08917-2] c 15 N71-24836
- READER, P. D.**  
Ion thruster cathode  
[NASA-CASE-XLE-07087] c 06 N69-39889
- Electrostatic ion engine having a permanent magnetic circuit Patent  
[NASA-CASE-XLE-01124] c 28 N71-14043
- Electrostatic ion rocket engine Patent  
[NASA-CASE-XLE-02068] c 28 N71-15681
- REAM, L. W.**  
Diesel engine catalytic combustor system  
[NASA-CASE-LEW-12995-1] c 37 N84-33808
- RECHTER, H. L.**  
Lightweight refractory insulation and method of preparing the same Patent  
[NASA-CASE-XMF-05279] c 18 N71-16124
- REDDING, A. H.**  
Self-adjusting multisegment, deployable, natural circulation radiator Patent  
[NASA-CASE-XHQ-03673] c 33 N71-29046
- REDMON, J. W.**  
Air bearing assembly for curved surfaces  
[NASA-CASE-MFS-20423] c 15 N72-11388
- Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903
- Impacting device for testing insulation  
[NASA-CASE-MFS-25862-2] c 37 N84-33807
- REECE, O. Y.**  
Low temperature flexure fatigue cryostat Patent  
[NASA-CASE-XMF-02964] c 14 N71-17659
- Horizontal cryostat for fatigue testing Patent  
[NASA-CASE-XMF-10968] c 14 N71-24234
- Synthesis of superconducting compounds by explosive compaction of powders  
[NASA-CASE-MFS-20861-1] c 18 N73-32437
- REED, A. E.**  
High power-high voltage waterload Patent  
[NASA-CASE-XNP-05381] c 09 N71-20842
- REED, J. H., JR.**  
Instrument for use in performing a controlled Valsalva maneuver Patent  
[NASA-CASE-XMS-01615] c 05 N70-41329
- REED, L.**  
Method of forming ceramic to metal seal Patent  
[NASA-CASE-XNP-01263-2] c 15 N71-26312
- REED, R. D.**  
Method for observing the features characterizing the surface of a land mass  
[NASA-CASE-FRC-11013-1] c 43 N81-17499
- Sun sensing guidance system for high altitude aircraft  
[NASA-CASE-FRC-11052-1] c 04 N82-23231
- REED, W. H., III**  
Test unit free-flight suspension system Patent  
[NASA-CASE-XLA-00939] c 11 N71-15926
- Viscous-pendulum-damper Patent  
[NASA-CASE-XLA-02079] c 12 N71-16894
- Viscous pendulum damper Patent  
[NASA-CASE-LAR-10274-1] c 14 N71-17626
- Suspended mass impact damper Patent  
[NASA-CASE-LAR-10193-1] c 15 N71-27146
- Decoupler pylon: wing/store flutter suppressor  
[NASA-CASE-LAR-12468-1] c 08 N82-32373
- REESE, P. B.**  
Pressure limiting propellant actuating system  
[NASA-CASE-MSC-18179-1] c 20 N80-18097
- REGNIER, W. W.**  
Passive propellant system  
[NASA-CASE-MFS-23642-2] c 20 N78-27176
- Passive propellant system  
[NASA-CASE-MFS-23642-1] c 20 N80-10278
- REHAGE, J. R.**  
Pulse counting circuit which simultaneously indicates the occurrence of the nth pulse Patent  
[NASA-CASE-XMF-00908] c 09 N70-41655
- REIBER, J. H. C.**  
Contour detector and data acquisition system for the left ventricular outline  
[NASA-CASE-ARC-10985-1] c 52 N79-10724
- REICHMAN, B.**  
Method for determining the point of zero zeta potential of semiconductor materials  
[NASA-CASE-LAR-12893-1] c 33 N82-26573
- Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23018
- REID, H. J. E., JR.**  
Dynamic precession damper for spin stabilized vehicles Patent  
[NASA-CASE-XLA-01989] c 21 N70-34295
- Attitude orientation of spin-stabilized space vehicles Patent  
[NASA-CASE-XLA-00281] c 21 N70-36943
- REID, H., JR.**  
Pulse width inverter Patent  
[NASA-CASE-MFS-10068] c 10 N71-25139
- Induction motor control system with voltage controlled oscillator circuit  
[NASA-CASE-MFS-21465-1] c 10 N73-32145
- Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423
- Coal-shale interface detector  
[NASA-CASE-MFS-23720-1] c 43 N80-23711
- REID, M. A.**  
Zirconium carbide as an electrocatalyst for the chromous-chromic redox couple  
[NASA-CASE-LEW-13246-1] c 44 N83-27344
- Method of making a light weight battery plaque  
[NASA-CASE-LEW-13349-1] c 26 N84-22734
- Chromium electrodes for REDOX cells  
[NASA-CASE-LEW-13653-1] c 44 N84-28205
- REID, M. S.**  
Conical scan tracking system employing a large antenna  
[NASA-CASE-NPO-14009-1] c 32 N79-13214
- REID, R.**  
Spacecraft docking and alignment system  
[NASA-CASE-MSC-12559-1] c 18 N76-14186
- REID, W. J.**  
Digital frequency discriminator Patent  
[NASA-CASE-MFS-14322] c 08 N71-18692
- REILLY, N. B.**  
Satellite personal communications system  
[NASA-CASE-NPO-14480-1] c 32 N80-20448
- REILLY, T. H.**  
Medical diagnosis system and method with multispectral imaging  
[NASA-CASE-NPO-14402-1] c 52 N81-27783
- REILLY, W. W.**  
Elastomer coated filler and composites thereof comprising at least 60% by weight of a hydrated filler and an elastomer containing an acid substituent  
[NASA-CASE-NPO-14857-1] c 27 N83-19900
- REINHARDT, G.**  
Gas purged dry box glove Patent  
[NASA-CASE-XLE-02531] c 05 N71-23080
- REINHARDT, V. S.**  
Time domain phase measuring apparatus  
[NASA-CASE-GSC-12228-1] c 33 N79-10338
- External bulb variable volume maser  
[NASA-CASE-GSC-12334-1] c 36 N79-14362
- Temperature averaging thermal probe  
[NASA-CASE-GSC-12795-1] c 35 N83-20085
- High stability amplifier  
[NASA-CASE-GSC-12646-1] c 33 N83-34191

- High stability buffered phase comparator  
[NASA-CASE-GSC-12645-1] c 33 N84-16454
- REINHOLD, H. W.  
Circuit breaker utilizing magnetic latching relays  
Patent  
[NASA-CASE-MSC-11277] c 09 N71-29008
- REINISCH, R. F.  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21156  
Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-2] c 27 N78-32315
- REINITZ, K.  
Extended area semiconductor radiation detectors and a novel readout arrangement Patent  
[NASA-CASE-XGS-03230] c 14 N71-23401
- REISS, D. A.  
Method and apparatus for shaping and enhancing acoustical levitation forces  
[NASA-CASE-MFS-25050-1] c 71 N81-15767
- REIMBAUM, A.  
Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent  
[NASA-CASE-NPO-10373] c 03 N71-18698  
Dicyanoacetylene polymers Patent  
[NASA-CASE-XNP-03250] c 06 N71-23500  
Heat detection and compositions and devices therefor  
[NASA-CASE-NPO-10784-1] c 14 N73-14428  
Preparation of alkali metal dispersions  
[NASA-CASE-XNP-08878] c 17 N73-28573  
Heat detection and compositions and devices therefor  
[NASA-CASE-NPO-10784-2] c 35 N75-25122  
Durable antistatic coating for polymethylmethacrylate  
[NASA-CASE-NPO-13887-1] c 27 N78-14184  
Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof  
[NASA-CASE-NPO-10557] c 27 N78-17214  
Pressure transducer  
[NASA-CASE-NPO-11150] c 35 N78-17359  
Membrane consisting of polyquaternary amine ion exchange polymer network interpenetrating the chains of thermoplastic matrix polymer  
[NASA-CASE-NPO-14001-1] c 27 N81-14076  
Viscoelastic cationic polymers containing the urethane linkage  
[NASA-CASE-NPO-10830-1] c 27 N81-15104  
Insoluble polyelectrolyte and ion-exchange hollow fiber impregnated therewith  
[NASA-CASE-NPO-13530-1] c 25 N81-17187  
Ion-exchange hollow fibers  
[NASA-CASE-NPO-13309-1] c 25 N81-19244  
Photoelectrochemical electrodes  
[NASA-CASE-NPO-15458-1] c 25 N84-12262
- REMPEL, R. C.  
Optically pumped resonance magnetometer for determining vectoral components in a spatial coordinate system Patent  
[NASA-CASE-XGS-04879] c 14 N71-20428
- REMPFER, P. S.  
Aircraft control system  
[NASA-CASE-ERC-10439] c 02 N73-19004
- RENNER, W.  
Bacteria detection instrument and method  
[NASA-CASE-GSC-11533-1] c 14 N73-13435
- RENNIE, P. A.  
Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694
- RESWICK, J. B.  
Prosthesis coupling  
[NASA-CASE-XNP-11069-1] c 52 N79-26772
- REYNOLDS, G. H.  
Stabilized lanthanum sulphur compounds  
[NASA-CASE-NPO-16135-1] c 25 N83-24572
- REYNOLDS, H. I.  
Edge coating of flat wires  
[NASA-CASE-XMF-05757-1] c 31 N78-21227
- REYNOLDS, J. M.  
Device and method for determining X ray reflection efficiency of optical surfaces  
[NASA-CASE-MFS-20243] c 23 N73-13662
- REYNOLDS, R. K.  
Hydrogen-fueled engine  
[NASA-CASE-NPO-13763-1] c 44 N78-33526
- REYNOLDS, W. E.  
Circuit breaker utilizing magnetic latching relays Patent  
[NASA-CASE-MSC-11277] c 09 N71-29008
- RHEIN, R. A.  
Curable liquid hydrocarbon prepolymers containing hydroxyl groups and process for producing same  
[NASA-CASE-NPO-13137-1] c 27 N80-32514  
Prepolymer dianhydrides  
[NASA-CASE-NPO-13899-1] c 27 N80-32515
- RHIM, W. K.  
Closed loop electrostatic system  
[NASA-CASE-NPO-15553-1] c 33 N83-12335
- RHO, J. H.  
Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754
- RHODES, C. M.  
Method for retarding dye fading during archival storage of developed color photographic film  
[NASA-CASE-MFS-23250-1] c 35 N82-11432
- RHODES, D. B.  
Optical scanner  
[NASA-CASE-LAR-11711-1] c 74 N78-17866  
Scanning afocal laser velocimeter projection lens system  
[NASA-CASE-LAR-12328-1] c 38 N82-32712
- RHODES, L. L.  
Latching mechanism Patent  
[NASA-CASE-MSC-15474-1] c 15 N71-26182
- RHODES, M. D.  
Composite sandwich lattice structure  
[NASA-CASE-LAR-11898-1] c 24 N78-10214  
Method of making a composite sandwich lattice structure  
[NASA-CASE-LAR-11898-2] c 24 N78-17149
- RHODES, P. H.  
Electrophoresis device  
[NASA-CASE-MFS-25426-1] c 25 N83-10126  
Static continuous electrophoresis device  
[NASA-CASE-MFS-25306-1] c 25 N83-13187
- RIAZ, M.  
Constant frequency output two stage induction machine systems Patent  
[NASA-CASE-ERC-10065] c 09 N71-27364
- RIBARICH, J. J.  
Guidance and maneuver analyzer Patent  
[NASA-CASE-XNP-09572] c 14 N71-15621
- RICCITELLO, S. R.  
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles  
[NASA-CASE-ARC-11008-1] c 27 N78-31232
- RICCITELLO, S. R.  
Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10088-1] c 06 N71-24739  
Flexible fire retardant foam  
[NASA-CASE-ARC-10180-1] c 28 N72-20767  
Intumescent composition, foamed product prepared therewith, and process for making same  
[NASA-CASE-ARC-10304-1] c 18 N73-26572  
Flexible fire retardant polyisocyanate modified neoprene foam  
[NASA-CASE-ARC-10180-1] c 27 N74-12614  
Intumescent composition, foamed product prepared therewith and process for making same  
[NASA-CASE-ARC-10304-2] c 27 N74-27037  
Intumescent coatings containing 4,4'-dinitrosulfanilide  
[NASA-CASE-ARC-11042-1] c 24 N78-14096  
Intumescent-ablator coatings using endothermic fillers  
[NASA-CASE-ARC-11043-1] c 24 N78-27180  
Ambient cure polyimide foams  
[NASA-CASE-ARC-11170-1] c 27 N79-11215  
Fire protection covering for small diameter missiles  
[NASA-CASE-ARC-11104-1] c 15 N79-26100  
Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides  
[NASA-CASE-ARC-11107-1] c 25 N80-16116
- RICE, R. F.  
Data compression system  
[NASA-CASE-NPO-11243] c 07 N72-20154  
Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel  
[NASA-CASE-NPO-13545-1] c 32 N77-12240
- RICE, R. R.  
Cryogenic storage system Patent  
[NASA-CASE-XMS-04390] c 31 N70-41871
- RICE, R. W.  
Extrusion can  
[NASA-CASE-NPO-10812] c 15 N73-13484
- RICE, S. H.  
Method of treating the surface of a glass member  
[NASA-CASE-GSC-12110-1] c 27 N77-32308  
Method of forming a sharp edge on an optical device  
[NASA-CASE-GSC-12348-1] c 74 N80-24149  
Method for milling and drilling glass  
[NASA-CASE-GSC-12638-1] c 31 N83-27058
- RICE, W. J.  
Indicated mean-effective pressure instrument  
[NASA-CASE-LEW-12681-1] c 35 N79-14345  
Real time pressure signal system for a rotary engine  
[NASA-CASE-LEW-13622-1] c 07 N84-22559
- RICH, E. JR.  
Bacterial contamination monitor  
[NASA-CASE-GSC-10879-1] c 14 N72-25413  
Protein sterilization method of firefly luciferase using reduced pressure and molecular sieves  
[NASA-CASE-GSC-10225-1] c 06 N73-27086
- RICHARD, C. E.  
Low cycle fatigue testing machine  
[NASA-CASE-LAR-10270-1] c 32 N72-25877
- RICHARD, H. L.  
Multispectral linear array multiband selection device  
[NASA-CASE-GSC-12811-1] c 35 N84-25018
- RICHARD, R. R.  
Angular accelerometer Patent  
[NASA-CASE-XMS-05936] c 14 N70-41682
- RICHARDS, R. R.  
Method for detecting pollutants  
[NASA-CASE-LAR-11405-1] c 45 N78-31714
- RICHARDS, W. E.  
Method and apparatus for optical modulating a light signal Patent  
[NASA-CASE-GSC-10216-1] c 23 N71-26722
- RICHARDSON, J. L.  
Tubing and cable cutting tool  
[NASA-CASE-LAR-12788-1] c 37 N84-28085
- RICHARDSON, R. W.  
Method for measuring cutaneous sensory perception  
[NASA-CASE-MSC-13809-1] c 05 N72-25122
- RICHLEY, E. A.  
Rocket engine Patent  
[NASA-CASE-XLE-00342] c 28 N70-37980
- RICHMOND, J. C.  
Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent  
[NASA-CASE-XGS-05291] c 23 N71-16341
- RICHTER, C. G.  
Formed metal ribbon wrap Patent  
[NASA-CASE-XLE-00164] c 15 N70-36411
- RICHTER, H. L.  
Reversible motion drive system Patent  
[NASA-CASE-NPO-10173] c 15 N71-24696
- RICHTER, I. A.  
Dual digital video switcher  
[NASA-CASE-KSC-10782-1] c 33 N75-30431
- RICHTER, R.  
Solid electrolyte cell  
[NASA-CASE-NPO-15269-1] c 44 N82-29710
- RICKETTS, R. H.  
Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12458-1] c 44 N83-21503  
Aeroelastic instability stoppers for wind tunnel models  
[NASA-CASE-LAR-12720-1] c 44 N83-21504
- RIEBE, J. M.  
Landing arrangement for aerial vehicles Patent  
[NASA-CASE-XLA-00142] c 02 N70-33286  
Jet aircraft configuration Patent  
[NASA-CASE-XLA-00087] c 02 N70-33332  
Landing arrangement for aerial vehicle Patent  
[NASA-CASE-XLA-00806] c 02 N70-34858  
Landing arrangement for aerospace vehicle Patent  
[NASA-CASE-XLA-00805] c 31 N70-38010  
Control system for rocket vehicles Patent  
[NASA-CASE-XLA-01163] c 21 N71-15582
- RIEBLING, R. W.  
Force-balanced, throttle valve Patent  
[NASA-CASE-NPO-10808] c 15 N71-27432  
Bipropellant injector  
[NASA-CASE-XNP-09461] c 28 N72-23809
- RIEKER, L. L.  
Polyvinyl alcohol cross-linked with two aldehydes  
[NASA-CASE-LEW-13504-1] c 25 N83-13188
- RIGGS, K. E.  
Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749
- RILEY, J. F.  
Compact solar still Patent  
[NASA-CASE-XMS-04533] c 15 N71-23088
- RILEY, T. J.  
Nickel-base alloy Patent  
[NASA-CASE-XLE-00283] c 17 N70-36816
- RINARD, G. A.  
Tumbler system to provide random motion  
[NASA-CASE-XGS-02437] c 15 N69-21472
- RINDNER, W.  
Voltage tunable Gunn-type microwave generator Patent  
[NASA-CASE-XER-07894] c 09 N71-18721  
Transverse piezoresistance and pinch effect electromechanical transducers Patent  
[NASA-CASE-ERC-10088] c 26 N71-25490  
Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334  
Gunn-type solid state devices  
[NASA-CASE-XER-07895] c 26 N72-25679  
Electricity measurement devices employing liquid crystalline materials  
[NASA-CASE-ERC-10275] c 26 N72-25680  
Semiconductor transducer device  
[NASA-CASE-ERC-10087-2] c 14 N72-31448
- RINEHART, D.  
Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012

- RINGELMAN, J. F.**  
Regulated power supply Patent  
[NASA-CASE-XMS-01991] c 09 N71-21449
- RIPPY, R. R.**  
Linear phase demodulator including a phase locked loop  
with auxiliary feedback loop  
[NASA-CASE-GSC-12018-1] c 33 N77-14334
- RITCHIE, D. G.**  
Soil particles separator, collector and viewer Patent  
[NASA-CASE-XNP-09770] c 15 N71-20440  
Material handling device Patent  
[NASA-CASE-XNP-09770-3] c 11 N71-27036  
Screen particle separator  
[NASA-CASE-XNP-09770-2] c 15 N72-22483
- RITCHIE, D. W.**  
Solar battery with interconnecting means for plural cells  
Patent  
[NASA-CASE-XNP-06508] c 03 N71-11050
- RITCHIE, R. S.**  
Slide release mechanism  
[NASA-CASE-MSC-20080-1] c 37 N82-31688
- RITCHIE, V. S.**  
Aerodynamic measuring device Patent  
[NASA-CASE-XLA-00481] c 14 N70-38824  
Check valve assembly for a probe Patent  
[NASA-CASE-XLA-00128] c 15 N70-37925
- RITTER, D. L.**  
Foldable construction block  
[NASA-CASE-MSC-12233-2] c 32 N73-13921
- RLOFF, K. L.**  
Dual wavelength scanning Doppler velocimeter  
[NASA-CASE-ARC-10637-1] c 35 N75-16783
- ROACH, J. E.**  
Casting propellant in rocket engine  
[NASA-CASE-LAR-11995-1] c 28 N77-10213
- ROBBINS, H. J.**  
Attitude control system for sounding rockets Patent  
[NASA-CASE-XGS-01654] c 31 N71-24750
- ROBELEN, D. B.**  
Deploy/release system  
[NASA-CASE-LAR-11575-1] c 02 N78-16014
- ROBERTS, D. E.**  
Apparatus for testing wiring harness by vibration  
generating means  
[NASA-CASE-MSC-15158-1] c 14 N72-17325
- ROBERTS, D. L.**  
Laser apparatus for removing material from rotating  
objects Patent  
[NASA-CASE-MFS-11279] c 16 N71-20400
- ROBERTS, E. J.**  
Cryogenic feedthrough  
[NASA-CASE-LAR-10031] c 15 N72-22484
- ROBERTS, M. L.**  
Method for making an aluminum or copper substrate  
panel for selective absorption of solar energy  
[NASA-CASE-MFS-23518-1] c 44 N79-11469  
Aluminum or copper substrate panel for selective  
absorption of solar energy  
[NASA-CASE-MFS-23518-3] c 44 N80-16452
- ROBERTS, V. W.**  
Silent emergency alarm system for schools and the  
like  
[NASA-CASE-NPO-11307-1] c 10 N73-30205
- ROBERTSON, A. J.**  
Aircraft control system  
[NASA-CASE-ERC-10439] c 02 N73-19004
- ROBERTSON, J. B.**  
High field CdS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-1] c 35 N82-31659  
Pyroelectric detector arrays  
[NASA-CASE-LAR-12363-2] c 33 N83-24763
- ROBERTSON, K. B.**  
Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303
- ROBERTSON, W. L.**  
Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073
- ROBILLARD, G.**  
Apparatus and method for control of a solid fueled rocket  
vehicle Patent  
[NASA-CASE-XNP-00217] c 28 N70-38181
- ROBINS, A. W.**  
Supersonic aircraft Patent  
[NASA-CASE-XLA-04451] c 02 N71-12243
- ROBINSON, G. P.**  
Heat flux sensor assembly  
[NASA-CASE-XMS-05909-1] c 14 N69-27459
- ROBINSON, M.**  
Solid state chemical source for ammonia beam maser  
Patent  
[NASA-CASE-XGS-01504] c 16 N70-41578
- ROBINSON, M. B.**  
Method and apparatus for supercooling and solidifying  
substances  
[NASA-CASE-MFS-25242-1] c 35 N83-29650
- ROBINSON, P. A., JR.**  
FET charge sensor and voltage probe  
[NASA-CASE-NPO-16045-1] c 76 N84-33211
- ROBINSON, R. K.**  
Fuselage structure using advanced technology fiber  
reinforced composites  
[NASA-CASE-LAR-11688-1] c 24 N82-26384
- ROBINSON, W. J., JR.**  
Microwave power transmission system wherein level of  
transmitted power is controlled by reflections from  
receiver  
[NASA-CASE-MFS-21470-1] c 44 N74-19870
- ROBSON, P. N.**  
Traveling wave solid state amplifier utilizing a  
semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251
- ROCHOW, S. E.**  
Hydroxy terminated perfluoro ethers Patent  
[NASA-CASE-NPO-10768] c 06 N71-27254  
Perfluoro polyether acyl fluorides  
[NASA-CASE-NPO-10765] c 06 N72-20121  
Polyurethane resins from hydroxy terminated perfluoro  
ethers  
[NASA-CASE-NPO-10768-2] c 06 N72-27144  
Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-2] c 06 N72-27151  
Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-1] c 06 N73-33076
- RODNER, W. H.**  
Solar cell mounting Patent  
[NASA-CASE-XNP-00826] c 03 N71-20895
- RODRIGUEZ, G. E.**  
Buck/boost regulator  
[NASA-CASE-GSC-12360-1] c 33 N81-19392
- ROEDER, E. R.**  
Brazing alloy binder  
[NASA-CASE-XMF-05868] c 26 N75-27125  
Brazing alloy composition  
[NASA-CASE-XMF-06053] c 26 N75-27126  
Brazing alloy  
[NASA-CASE-XNP-03878] c 26 N75-27127
- ROESKE, P. W.**  
Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01609] c 14 N71-10500
- ROGALLO, F. M.**  
Aeroflexible structures  
[NASA-CASE-XLA-06095] c 01 N69-39981  
Jet aircraft configuration Patent  
[NASA-CASE-XLA-00087] c 02 N70-33332  
Control for flexible parawing Patent  
[NASA-CASE-XLA-06958] c 02 N71-11038
- ROGALLO, V. L.**  
Propeller blade loading control Patent  
[NASA-CASE-XAC-00139] c 02 N70-34856  
Null-type vacuum microbalance Patent  
[NASA-CASE-XAC-00472] c 15 N70-40180  
Thermo-protective device for balances Patent  
[NASA-CASE-XAC-00648] c 14 N70-40400  
Force transducer Patent  
[NASA-CASE-XAC-01101] c 14 N70-41957
- ROGERS, F. O.**  
Synthesis of zinc titanate pigment and coatings  
containing the same  
[NASA-CASE-MFS-13532] c 18 N72-17532
- ROGERS, J. R.**  
Pneumatic load compensating or controlling system  
[NASA-CASE-ARC-10907-1] c 37 N75-32465  
Smoke generator  
[NASA-CASE-ARC-10905-1] c 37 N77-13418
- ROGOWSKI, R. S.**  
Method for detecting pollutants  
[NASA-CASE-LAR-11405-1] c 45 N78-31714  
Thermoluminescent aerosol analysis  
[NASA-CASE-LAR-12046-1] c 25 N78-15210
- ROHATGI, M. K.**  
Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371  
Hydrodesulfurization of chlorinated coal  
[NASA-CASE-NPO-15304-1] c 25 N83-31743
- ROLF, E.**  
Laser Doppler system for measuring three dimensional  
vector velocity Patent  
[NASA-CASE-MFS-20386] c 21 N71-19212
- ROLIK, G. P.**  
Solar cell panels with light transmitting plate  
[NASA-CASE-NPO-10747] c 03 N72-22042
- ROLLER, R. F.**  
Demodulator for carrier transducers  
[NASA-CASE-NUC-10107-1] c 33 N74-17930
- ROLLINS, G. N.**  
System for calibrating pressure transducer  
[NASA-CASE-LAR-10910-1] c 35 N74-13132
- ROLLINS, J. R.**  
Externally supported internally stabilized flexible duct  
joint  
[NASA-CASE-MFS-19194-1] c 37 N76-14460
- ROM, F. E.**  
Gas core nuclear reactor Patent  
[NASA-CASE-LEW-10250-1] c 22 N71-28759
- ROMAN, J. A.**  
Biomedical electrode arrangement Patent  
[NASA-CASE-XFR-10856] c 05 N71-11189  
Method and apparatus for attaching physiological  
monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293  
Gas low pressure low flow rate metering system  
Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546  
Respiration monitor  
[NASA-CASE-FRC-10012] c 14 N72-17329
- ROMAN, R. F.**  
Hydrogen hollow cathode ion source  
[NASA-CASE-LEW-12940-1] c 72 N80-33186  
Ring-cusp ion thruster with shell anode  
[NASA-CASE-LEW-13881-1] c 72 N83-21903
- ROMANCZYK, K. C.**  
Fringe counter for interferometers Patent  
[NASA-CASE-LAR-10204] c 14 N71-27215
- ROMMEL, M. A.**  
Hydrogen leak detection device Patent  
[NASA-CASE-MFS-11537] c 14 N71-20442
- ROMVARY, E., JR.**  
Intermittent type silica gel adsorption refrigerator  
Patent  
[NASA-CASE-XNP-00920] c 15 N71-15906
- RONEY, B. W.**  
Evacuation valve  
[NASA-CASE-LAR-10061-1] c 15 N72-31483
- ROOT, G. L.**  
Valve seat  
[NASA-CASE-NPO-10606] c 15 N72-25451
- ROSALES, L. A.**  
Control valve and co-axial variable injector Patent  
[NASA-CASE-XNP-09702] c 15 N71-17654  
Multiple orifice throttle valve Patent  
[NASA-CASE-XNP-09698] c 15 N71-18580
- ROSE, S. D.**  
Coal-rock interface detector  
[NASA-CASE-MFS-23725-1] c 43 N79-31706
- ROSEN, H. A.**  
Variable high level mixer  
[NASA-CASE-XGS-02171] c 09 N69-24324  
Apparatus for changing the orientation and velocity of  
a spinning body traversing a path Patent  
[NASA-CASE-HQN-00936] c 31 N71-29050
- ROSEN, L.**  
Focused image holography with extended sources  
Patent  
[NASA-CASE-ERC-10019] c 16 N71-15551  
Recording and reconstructing focused image holograms  
Patent  
[NASA-CASE-ERC-10017] c 16 N71-15567  
Method and means for recording and reconstructing  
holograms without use of a reference beam Patent  
[NASA-CASE-ERC-10020] c 16 N71-26154
- ROSENBAUM, B. J.**  
Flow test device  
[NASA-CASE-XMS-04917] c 14 N69-24257
- ROSENBLUM, L.**  
Split welding chamber Patent  
[NASA-CASE-LEW-11531] c 15 N71-14932  
Analytical test apparatus and method for determining  
oxide content of alkali metal Patent  
[NASA-CASE-XLE-01997] c 06 N71-23527
- ROSENGREN, L. G.**  
Method and apparatus for background signal reduction  
in opto-acoustic absorption measurement  
[NASA-CASE-NPO-13683-1] c 35 N77-14411
- ROSIER, W. R.**  
Portable device for use in starting air-start-units for  
aircraft and having cable lead testing capability  
[NASA-CASE-FRC-10113-1] c 33 N80-26599
- ROSIN, A. D.**  
Zero gravity separator Patent  
[NASA-CASE-XLE-00586] c 15 N71-15968
- ROSIN, S.**  
Wide angle long eye relief eyepiece Patent  
[NASA-CASE-XMS-06058-1] c 23 N71-24857  
Ritchey-Chretien Telescope  
[NASA-CASE-GSC-11487-1] c 14 N73-30393
- ROSINSKI, W. K.**  
Adjustable force probe  
[NASA-CASE-MFS-20760] c 14 N72-33377
- ROSITANO, S. A.**  
Visual examination apparatus  
[NASA-CASE-ARC-10329-1] c 05 N73-26072  
Visual examination apparatus  
[US-PATENT-RE-28,921] c 52 N76-30783

- ROSS, B.**  
Increased voltage photovoltaic cell  
[NASA-CASE-NPO-16155-1] c 44 N84-20917
- ROSS, L. O.**  
Preparation of heterocyclic block copolymer  
omega-diamidoximes  
[NASA-CASE-ARC-11060-1] c 27 N79-22300
- ROSSER, R. W.**  
Polyimide foam for the thermal insulation and fire protection  
[NASA-CASE-ARC-10484-1] c 27 N74-12812  
Fiber modified polyurethane foam for ballistic protection  
[NASA-CASE-ARC-10714-1] c 27 N76-15310  
Preparation of heterocyclic block copolymer  
omega-diamidoximes  
[NASA-CASE-ARC-11060-1] c 27 N79-22300  
Perfluoroalkyl polytriazines containing pendent  
iododifluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016  
Process for the preparation of fluorine containing  
crosslinked elastomeric polytriazine and product so  
produced  
[NASA-CASE-ARC-11248-1] c 27 N81-17259  
The 1,2,4-oxadiazole elastomers  
[NASA-CASE-ARC-11253-1] c 27 N81-17262  
Bifunctional monomers having terminal oxime and cyano  
or amidine groups  
[NASA-CASE-ARC-11253-3] c 27 N81-24256  
The 1,1,1-triaryl-2,2,2-trifluoroethanes and process for  
their synthesis  
[NASA-CASE-ARC-11097-1] c 25 N82-24312  
Preparation of crosslinked 1,2,4-oxadiazole polymer  
[NASA-CASE-ARC-11253-2] c 27 N82-24338  
Preparation of perfluorinated 1,2,4-oxadiazoles  
[NASA-CASE-ARC-11267-2] c 23 N82-28353  
High performance filleting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490  
High performance channel injection sealant invention  
abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523  
Fluoroether modified epoxy composites  
[NASA-CASE-ARC-11418-1] c 24 N84-11213  
Process for preparing perfluorotriazine elastomers and  
precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744
- ROSSI, B. B.**  
X-ray reflection collimator adapted to focus X-radiation  
directly on a detector Patent  
[NASA-CASE-XHQ-04106] c 14 N70-40240
- ROSSOW, V. J.**  
Apparatus for measuring conductivity and velocity of  
plasma utilizing a plurality of sensing coils positioned in  
the plasma Patent  
[NASA-CASE-XAC-05695] c 25 N71-16073
- ROTH, H.**  
Voltage tunable Gunn-type microwave generator  
Patent  
[NASA-CASE-XER-07894] c 09 N71-18721  
Gunn-type solid state devices  
[NASA-CASE-XER-07895] c 26 N72-25679
- ROTMAN, A.**  
Supporting and protecting device Patent  
[NASA-CASE-XMF-00580] c 11 N70-35383
- ROUDEBUSH, W. H.**  
Gas turbine combustor Patent  
[NASA-CASE-LEW-10286-1] c 28 N71-28915
- ROUGHTON, N. A.**  
Method and apparatus for vibration analysis utilizing the  
Mossbauer effect  
[NASA-CASE-XMF-05882] c 35 N75-27329
- ROUSEY, W. J.**  
System for generating timing and control signals  
[NASA-CASE-NPO-13125-1] c 33 N75-19519
- ROUTH, D. E.**  
Multilevel metallization method for fabricating a metal  
oxide semiconductor device  
[NASA-CASE-MFS-23541-1] c 76 N79-14906  
Method of construction of a multi-cell solar array  
[NASA-CASE-MFS-23540-1] c 44 N79-26475  
Method for sequentially processing a multi-level  
interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-15670-1] c 33 N82-33634  
Method for sequentially processing a multi-level  
interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884
- ROUZER, L. E.**  
Segmented superconducting magnet for a broadband  
traveling wave maser Patent  
[NASA-CASE-XGS-10518] c 16 N71-28554
- ROWE, H. E.**  
Dually mode locked Nd:YAG laser  
[NASA-CASE-GSC-11746-1] c 36 N75-19654
- ROWLAND, C. W.**  
Apparatus for ejection of an instrument cover  
[NASA-CASE-XMF-04132] c 15 N69-27502
- Laser communication system for controlling several  
functions at a location remote to the laser  
[NASA-CASE-LAR-10311-1] c 16 N73-16536
- ROWLETTE, J. J.**  
State-of-charge coulometer  
[NASA-CASE-NPO-15759-1] c 35 N82-26630  
Chemically rechargeable battery  
[NASA-CASE-NPO-16024-1] c 44 N84-23020
- ROWLEY, P. D.**  
Measurement of plasma temperature and density using  
radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156
- ROY, N. L.**  
Cosmic dust analyzer  
[NASA-CASE-MSC-13802-2] c 35 N76-15431  
Particle parameter analyzing system  
[NASA-CASE-XLE-06094] c 33 N76-17293  
Apparatus for handling micron size range particulate  
material  
[NASA-CASE-NPO-10151] c 37 N78-17386
- ROY, U.**  
Synthesis of superconducting compounds by explosive  
compaction of powders  
[NASA-CASE-MFS-20861-1] c 18 N73-32437
- ROYSTER, D. M.**  
Metal matrix composite structural panel construction  
[NASA-CASE-LAR-12807-1] c 24 N84-11214  
Curved cap corrugated sheet  
[NASA-CASE-LAR-12884-1] c 18 N84-33450
- ROZAS, P.**  
Doppler radar having phase modulation of both  
transmitted and reflected return signals  
[NASA-CASE-MSC-18675-1] c 32 N84-22820
- RUBERT, K. F.**  
Method of obtaining permanent record of surface flow  
phenomena Patent  
[NASA-CASE-XLA-01353] c 14 N70-41366  
Quick release connector Patent  
[NASA-CASE-XLA-01141] c 15 N71-13789
- RUBIN, B.**  
Process for the preparation of brushite crystals  
[NASA-CASE-ERC-10338] c 04 N72-33072
- RUBIN, D. C.**  
Electricity measurement devices employing liquid  
crystalline materials  
[NASA-CASE-ERC-10275] c 26 N72-25680
- RUBIN, I.**  
Hexagon solar power panel  
[NASA-CASE-NPO-12148-1] c 44 N78-27515
- RUDDOCK, K. A.**  
Optically pumped resonance magnetometer for  
determining vectorial components in a spatial coordinate  
system Patent  
[NASA-CASE-XGS-04879] c 14 N71-20428
- RUDERMAN, I. W.**  
Metabolic rate meter and method  
[NASA-CASE-MSC-12239-1] c 52 N79-21750
- RUDMANN, A. A.**  
Coupling device for moving vehicles  
[NASA-CASE-GSC-12322-1] c 37 N80-14398  
Device for coupling a first vehicle to a second vehicle  
[NASA-CASE-GSC-12429-1] c 37 N81-14320
- RUDNICK, I.**  
Acoustic driving of rotor  
[NASA-CASE-NPO-14005-1] c 71 N79-20827
- RUEHR, W. C.**  
Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999
- RUHNKE, L. H.**  
Determining distance to lightning strokes from a single  
station  
[NASA-CASE-KSC-10698] c 07 N73-20175  
Rocket borne instrument to measure electric fields inside  
electrified clouds  
[NASA-CASE-KSC-10730-1] c 14 N73-32318
- RUITBERG, A. P.**  
High voltage isolation transformer  
[NASA-CASE-GSC-12817-1] c 33 N83-29590  
High voltage power supply  
[NASA-CASE-GSC-12818-1] c 33 N83-29594
- RUIZ, W. V.**  
Precision heat forming of tetrafluoroethylene tubing  
[NASA-CASE-MSC-18430-1] c 37 N82-24491
- RUMBLE, C. V.**  
Means for accommodating large overstrain in lead  
wires  
[NASA-CASE-LAR-10168-1] c 33 N74-22865
- RUMMEL, J. A.**  
Metabolic analyzer  
[NASA-CASE-MFS-21415-1] c 52 N74-20728
- RUMMLER, D. R.**  
Automatic force measuring system Patent  
[NASA-CASE-XLA-02605] c 14 N71-10773  
Low mass truss structure  
[NASA-CASE-LAR-10548-1] c 11 N72-25287
- RUNDELL, D. J.**  
Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067
- RUOFF, C. F.**  
Retinally stabilized differential resolution television  
display  
[US-PATENT-APPL-SN-425204] c 32 N83-12308  
Memory metal actuator  
[NASA-CASE-NPO-15960-1] c 37 N83-36485
- RUPE, J. H.**  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-1] c 37 N76-16448  
System for minimizing internal combustion engine  
pollution emission  
[NASA-CASE-NPO-13402-1] c 37 N76-18457  
Hydrogen rich gas generator  
[NASA-CASE-NPO-13342-2] c 44 N76-29700
- RUPNIK, D. R.**  
Switching circuit Patent  
[NASA-CASE-XNP-06505] c 10 N71-24799
- RUPP, C. C.**  
Attitude control system  
[NASA-CASE-MFS-22787-1] c 15 N77-10113  
Tetherline system for orbiting satellites  
[NASA-CASE-MFS-23564-1] c 15 N78-25119
- RUPPE, E. P.**  
Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492
- RUSSELL, C. H.**  
Analog to digital converter tester Patent  
[NASA-CASE-XLA-06713] c 14 N71-28991
- RUSSELL, G. R.**  
Inert gas metallic vapor laser  
[NASA-CASE-NPO-13448-1] c 36 N75-32441  
Isotope separation using metallic vapor lasers  
[NASA-CASE-NPO-13550-1] c 36 N77-26477
- RUSSELL, J. M., III**  
Event recorder Patent  
[NASA-CASE-XLA-01832] c 14 N71-21006  
Ablation sensor Patent  
[NASA-CASE-XLA-01791] c 14 N71-22991
- RUSSELL, L. D.**  
High intensity radiant energy pulse source having means  
for opening shutter when light flux has reached a desired  
level  
[NASA-CASE-ARC-10178-1] c 09 N72-17152  
Thermoelectric radiometer utilizing polymer film  
[NASA-CASE-ARC-10138-1] c 14 N72-24477
- RUSSELL, W. E.**  
Method and apparatus for making curved reflectors  
Patent  
[NASA-CASE-XLE-08917] c 15 N71-15597  
Apparatus for making curved reflectors Patent  
[NASA-CASE-XLE-08917-2] c 15 N71-24836
- RUST, R.**  
Solenoid construction Patent  
[NASA-CASE-XNP-01951] c 09 N70-41929
- RUTLEDGE, C. W.**  
Digital control of diode laser for atmospheric  
spectroscopy  
[NASA-CASE-NPO-16000-1] c 36 N83-24842
- RYAN, C. R.**  
Quadrature demodulation  
[NASA-CASE-GSC-12137-1] c 33 N78-32338
- RYAN, E. W.**  
Thrust reverser for a long duct fan engine  
[NASA-CASE-LEW-13199-1] c 07 N82-26293
- RYAN, G. G.**  
Tanker orbit transfer vehicle and method  
[NASA-CASE-MSC-20543-1] c 18 N84-22610
- RYASON, P. R.**  
Solar photolysis of water  
[NASA-CASE-NPO-13675-1] c 44 N77-32580  
Solar photolysis of water  
[NASA-CASE-NPO-14126-1] c 44 N79-11470  
Continuous coal processing method  
[NASA-CASE-NPO-13758-2] c 31 N81-15154
- RYBICKI, G.**  
Oxidation resistant slurry coating for carbon-based  
materials  
[NASA-CASE-LEW-13923-1] c 24 N84-16266

## S

- SABAROFF, S.**  
Broadband frequency discriminator Patent  
[NASA-CASE-NPO-10096] c 07 N71-24583  
Systems and methods for determining radio frequency  
interference  
[NASA-CASE-GSC-12150-1] c 32 N79-11265
- SABELMAN, E. E.**  
Pump for delivering heated fluids  
[NASA-CASE-NPO-11417] c 15 N73-24513  
Ferrofluidic solenoid  
[NASA-CASE-NPO-11738-1] c 09 N73-30185



## SABOL, A. P.

- Crossed-field MHD plasma generator/ accelerator Patent  
[NASA-CASE-XLA-03374] c 25 N71-15562
- Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent  
[NASA-CASE-XLA-03103] c 25 N71-21693
- Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
[NASA-CASE-LAR-10612-1] c 12 N73-28144
- Heat exchanger system and method  
[NASA-CASE-LAR-10799-2] c 34 N76-17317
- Solar hydrogen generator  
[NASA-CASE-LAR-11361-1] c 44 N77-22607
- SABOURIN, D. J.  
Method for terminal position determination in Earth terminal-to-satellite burst acquisition and synchronization  
[NASA-CASE-LEW-13893-1] c 32 N83-30832
- SACKS, B. H.  
Magnetically actuated tuning method for Gunn oscillators  
[NASA-CASE-NPO-12106] c 09 N73-15235
- SADHUKHAN, P.  
Process for preparing higher oxides of the alkali and alkaline earth metals  
[NASA-CASE-ARC-10992-1] c 26 N78-32229
- SAFFREN, M. M.  
Material suspension within an acoustically excited resonant chamber  
[NASA-CASE-NPO-13263-1] c 12 N75-24774
- Heat operated cryogenic electrical generator  
[NASA-CASE-NPO-13303-1] c 20 N75-24837
- Doped Josephson tunneling junction for use in a sensitive IR detector  
[NASA-CASE-NPO-13348-1] c 33 N75-31332
- Magnetometer using superconducting rotating body  
[NASA-CASE-NPO-13388-1] c 35 N76-16390
- Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback  
[NASA-CASE-NPO-13348-1] c 36 N76-29575
- Apparatus for photon excited catalysis  
[NASA-CASE-NPO-13566-1] c 25 N77-32255
- Closed loop electrostatic system  
[NASA-CASE-NPO-15553-1] c 33 N83-12335
- SAHINKAYA, Y.  
Optimal control system for an electric motor driven vehicle  
[NASA-CASE-NPO-11210] c 11 N72-20244
- SAINSBURY-CARTER, J. B.  
Bonded joint and method  
[NASA-CASE-LAR-10900-1] c 37 N74-23064
- SAINTCLAIR, T. L.  
Polyimide adhesives  
[NASA-CASE-LAR-11397-1] c 27 N75-29263
- SAKELLARIS, P. C.  
Automatic fluid dispenser  
[NASA-CASE-ARC-10820-1] c 35 N78-19466
- SALAMA, A. M.  
Method of mitigating titanium impurities effects in p-type silicon material for solar cells  
[NASA-CASE-NPO-14635-1] c 44 N80-24741
- Efficiency of silicon solar cells containing chromium  
[NASA-CASE-NPO-15179-1] c 44 N82-26777
- SALEMME, C. T.  
Impact absorbing blade mounts for variable pitch blades  
[NASA-CASE-LEW-12313-1] c 37 N78-10466
- SALISBURY, D. P.  
High performance filletting sealant  
[NASA-CASE-ARC-11409-1] c 27 N82-32490
- High performance channel injection sealant invention abstract  
[NASA-CASE-ARC-14408-1] c 27 N82-33523
- SALISBURY, J. K., JR.  
Controller arm for a remotely related slave arm  
[NASA-CASE-ARC-11052-1] c 37 N79-28551
- SALMIRS, S.  
Radiation direction detector including means for compensating for photo-cell aging Patent  
[NASA-CASE-XLA-00183] c 14 N70-40239
- Spacecraft separation system for spinning vehicles and/or payloads Patent  
[NASA-CASE-XLA-02132] c 31 N71-10582
- SALOMON, P. M.  
Programmable scan/read circuitry for charge coupled device imaging detectors  
[NASA-CASE-NPO-15345-1] c 74 N84-23247
- SALTER, W. E.  
Pseudo-noise test set for communication system evaluation  
[NASA-CASE-MFS-22671-1] c 35 N75-21582
- Method of and means for testing a tape record/playback system  
[NASA-CASE-MFS-22671-2] c 35 N77-17426

## SALTZMAN, E. J.

- Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692
- Low-drag ground vehicle particularly suited for use in safety transporting livestock  
[NASA-CASE-FRC-11058-1] c 85 N82-33268
- SALVINSKI, R. J.  
Electrohydrodynamic control valve Patent  
[NASA-CASE-NPO-10416] c 12 N71-27332
- Ultrasonically bonded valve assembly  
[NASA-CASE-NPO-13360-1] c 37 N75-25185
- SAMFIELD, E.  
Inflatable tether Patent  
[NASA-CASE-XMS-10993] c 15 N71-28936
- SAMONSKI, F. H., JR.  
Liquid-gas separator for zero gravity environment Patent  
[NASA-CASE-XMS-01492] c 05 N70-41297
- SAMSON, J. A. R.  
Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent  
[NASA-CASE-LAR-10180-1] c 06 N71-13461
- SAMSON, R.  
Sealed cabinetry Patent  
[NASA-CASE-MSC-12168-1] c 09 N71-18600
- SAN MIGUEL, A.  
Means and method of measuring viscoelastic strain Patent  
[NASA-CASE-XNP-01153] c 32 N71-17845
- Miniature stress transducer Patent  
[NASA-CASE-XNP-02883] c 14 N71-21091
- SANDBORN, V. A.  
Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent  
[NASA-CASE-XLE-00243] c 14 N70-38802
- Apparatus for increasing ion engine beam density Patent  
[NASA-CASE-XLE-00519] c 28 N70-41576
- SANDER, R. C.  
Transient video signal recording with expanded playback Patent  
[NASA-CASE-ARC-10003-1] c 09 N71-25866
- SANDERS, B. W.  
Airflow control system for supersonic inlets  
[NASA-CASE-LEW-11188-1] c 02 N74-20648
- SANDFORD, M. C.  
Solar cell angular position transducer  
[NASA-CASE-LAR-11999-1] c 44 N80-18552
- SANDROCK, G. D.  
High temperature cobalt-base alloy Patent  
[NASA-CASE-XLE-02991] c 17 N71-16025
- High temperature ferromagnetic cobalt-base alloy Patent  
[NASA-CASE-XLE-03629] c 17 N71-23248
- Cobalt-base alloy  
[NASA-CASE-LEW-10436-1] c 17 N73-32415
- SANDSTROM, D. B.  
Fabrication of single crystal film semiconductor devices  
[NASA-CASE-ERC-10222] c 09 N72-22199
- SANTARPIA, D.  
Dually mode locked Nd:YAG laser  
[NASA-CASE-GSC-11746-1] c 36 N75-19654
- SARBOLOUKI, M. N.  
Photomechanical transducer  
[NASA-CASE-NPO-14363-1] c 39 N81-25400
- SARGISSON, D. F.  
Gas turbine engine with convertible accessories  
[NASA-CASE-LEW-12390-1] c 07 N78-17056
- Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-2] c 07 N78-18066
- Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-3] c 07 N79-14096
- SATER, B. L.  
Method of cold welding using ion beam technology  
[NASA-CASE-LEW-12982-1] c 37 N81-19455
- SAUER, L. S.  
Hybrid lubrication system and bearing Patent  
[NASA-CASE-XNP-01641] c 15 N71-22997
- SAUER, R. L.  
Automatic blowdown sampling  
[NASA-CASE-MSC-14640-1] c 54 N76-14804
- SAUER, T. H.  
Parallel-plate viscometer with double diaphragm suspension  
[NASA-CASE-NPO-11387] c 14 N73-14429
- SAUERS, D. G.  
Measuring device Patent  
[NASA-CASE-XMS-01546] c 14 N70-40233
- Lightweight electrically-powered flexible thermal laminate  
[NASA-CASE-MSC-12662-1] c 33 N79-12331

## SAUNDERS, A. A., JR.

- Method and apparatus for rapid thrust increases in a turbofan engine  
[NASA-CASE-LEW-12971-1] c 07 N80-18039
- Integrated control system for a gas turbine engine  
[NASA-CASE-LEW-12594-2] c 07 N81-19116
- SAUNDERS, A. R.  
A technique for breaking ice in the path of a ship  
[NASA-CASE-LAR-10815-1] c 16 N72-22520
- SAUNDERS, J. M.  
Insulation bonding test system  
[NASA-CASE-MFS-25862-1] c 27 N83-19903
- SAUNDERS, N. T.  
Method of producing porous tungsten ionizers for ion rocket engines Patent  
[NASA-CASE-XLE-00455] c 28 N70-38187
- SAUTER, R. J.  
Foot pedal operated fluid type exercising device  
[NASA-CASE-MSC-11561-1] c 05 N73-32014
- SAWKO, P. M.  
Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines  
[NASA-CASE-ARC-10325] c 06 N72-25147
- Intumescent paint containing nitrile rubber  
[NASA-CASE-ARC-10196-1] c 18 N73-13562
- Transparent fire resistant polymeric structures  
[NASA-CASE-ARC-10813-1] c 27 N76-16230
- Intumescent coatings containing 4,4'-dinitrosulfanilide  
[NASA-CASE-ARC-11042-1] c 24 N78-14096
- Intumescent-ablator coatings using endothermic fillers  
[NASA-CASE-ARC-11043-1] c 24 N78-27180
- Ambient cure polyimide foams  
[NASA-CASE-ARC-11170-1] c 27 N79-11215
- Fire protection covering for small diameter missiles  
[NASA-CASE-ARC-11104-1] c 15 N79-26100
- Catalysts for polyimide foams from aromatic isocyanates and aromatic dianhydrides  
[NASA-CASE-ARC-11107-1] c 25 N80-16116
- Structural wood panels with improved fire resistance  
[NASA-CASE-ARC-11174-1] c 24 N81-13999
- SAWYER, C. D.  
Control for nuclear thermionic power source  
[NASA-CASE-NPO-13114-2] c 73 N78-28913
- SAWYER, D. E.  
Semiconductor-ferroelectric memory device  
[NASA-CASE-ERC-10307] c 08 N72-21198
- Fabrication of single crystal film semiconductor devices  
[NASA-CASE-ERC-10222] c 09 N72-22199
- SAWYER, J. T.  
Leak detector  
[NASA-CASE-MFS-21761-1] c 35 N75-15931
- SAWYER, R. V.  
Electrical servo actuator bracket  
[NASA-CASE-FRC-11044-1] c 37 N81-33483
- Computer circuit card puller  
[NASA-CASE-FRC-11042-1] c 60 N82-24839
- SCAPICCHIO, A. J.  
Apparatus and method for separating a semiconductor wafer Patent  
[NASA-CASE-ERC-10138] c 26 N71-14354
- SCHACH, M.  
Apparatus for controlling the temperature of balloon-borne equipment  
[NASA-CASE-GSC-11620-1] c 34 N74-23039
- SCHACHT, W. F.  
Water cooled contactor for anode in carbon arc mechanism  
[NASA-CASE-XMS-03700] c 15 N69-24266
- SCHACHTER, M. M.  
Apparatus for producing three-dimensional recordings of fluorescence spectra Patent  
[NASA-CASE-XGS-01231] c 14 N70-41676
- SCHAEFER, D. H.  
Binary magnetic memory device Patent  
[NASA-CASE-XGS-00174] c 08 N70-34743
- Logarithmic converter Patent  
[NASA-CASE-XLA-00471] c 08 N70-34778
- Full binary adder Patent  
[NASA-CASE-XGS-00689] c 08 N70-34787
- Ripple add and ripple subtract binary counters Patent  
[NASA-CASE-XGS-04766] c 08 N71-18602
- Computing apparatus Patent  
[NASA-CASE-XGS-04765] c 08 N71-18693
- Signal detection and tracking apparatus Patent  
[NASA-CASE-XGS-03502] c 10 N71-20852
- Two-dimensional radiant energy array computers and computing devices  
[NASA-CASE-GSC-11839-1] c 60 N77-14751
- Memory device for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-2] c 60 N78-10709
- SCHAEFER, G. J.  
Apparatus and method for determining the position of a radiant energy source  
[NASA-CASE-GSC-12147-1] c 32 N81-27341

- SCHAEER, G. R.**  
Method of making porous conductive supports for electrodes  
[NASA-CASE-GSC-11367-1] c 44 N74-19692
- SCHAFER, G. L.**  
Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent  
[NASA-CASE-ARC-10137-1] c 09 N71-28468
- SCHAFPERT, J. C.**  
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent  
[NASA-CASE-XGS-00381] c 09 N70-34819
- SCHALLER, N. C.**  
Apparatus for vibrational testing of articles  
[NASA-CASE-GSC-11302-1] c 14 N73-13416
- SCHANSMAN, R. R.**  
Photoelectric detection system  
[NASA-CASE-MFS-23776-1] c 33 N82-28545
- SCHAPPERT, G. T.**  
Method and apparatus for wavelength tuning of liquid lasers  
[NASA-CASE-ERC-10187] c 16 N69-31343
- SCHAU, R. B.**  
Thermobulb mount Patent  
[NASA-CASE-NPO-10158] c 33 N71-16356
- SCHIEBE, H.**  
Metering gun for dispensing precisely measured charges of fluid  
[NASA-CASE-MFS-21163-1] c 54 N74-17853
- SCHILL, J. T.**  
Cryogenic thermal insulation Patent  
[NASA-CASE-XMF-05046] c 33 N71-28892
- SCHER, M. P.**  
Spacecraft attitude control method and apparatus  
[NASA-CASE-HQN-10439] c 21 N72-21624
- SCHER, S. H.**  
Hot air balloon deceleration and recovery system Patent  
[NASA-CASE-XLA-06824-2] c 02 N71-11037
- SCHIFFNER, G.**  
Power supply for carbon dioxide lasers  
[NASA-CASE-GSC-11222-1] c 16 N73-32391
- SCHILLER, J. G.**  
Method and device for the detection of phenol and related compounds  
[NASA-CASE-LEW-12513-1] c 25 N79-22235
- SCHINDLER, R. A.**  
Interferometer direction sensor Patent  
[NASA-CASE-NPO-10320] c 14 N71-17655  
Interferometer servo system Patent  
[NASA-CASE-NPO-10300] c 14 N71-17662  
Single reflector interference spectrometer and drive system therefor  
[NASA-CASE-NPO-11832-1] c 35 N74-23040  
Interferometer mirror tilt correcting system  
[NASA-CASE-NPO-13687-1] c 35 N78-18391  
Over-under double-pass interferometer  
[NASA-CASE-NPO-13999-1] c 35 N78-18395  
Apparatus for providing a servo drive signal in a high-speed stepping interferometer  
[NASA-CASE-NPO-13569-2] c 35 N79-14348  
Velocity servo for continuous scan Fourier interference spectrometer  
[NASA-CASE-NPO-14093-1] c 35 N80-20563  
Interferometer  
[NASA-CASE-NPO-14448-1] c 74 N81-29963
- SCHLESINGER, F. W.**  
Optical alignment system Patent  
[NASA-CASE-XNP-02029] c 14 N70-41955
- SCHLOSS, A. L.**  
Solid state switch  
[NASA-CASE-XNP-09228] c 09 N69-27500
- SCHMIDT, E. E.**  
Caterpillar micro positioner  
[NASA-CASE-GSC-10780-1] c 14 N72-18283
- SCHMIDT, H. W.**  
Conical valve plug Patent  
[NASA-CASE-XLE-00715] c 15 N70-34859  
Fluid coupling Patent  
[NASA-CASE-XLE-00397] c 15 N70-36492
- SCHMIDT, K. C.**  
Radiation and particle detector and amplifier  
[NASA-CASE-NPO-12128-1] c 14 N73-32317
- SCHMIDT, L. F.**  
Photosensitive device to detect bearing deviation Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089  
Light sensor  
[NASA-CASE-NPO-11311] c 14 N72-25414  
Sun direction detection system  
[NASA-CASE-NPO-13722-1] c 74 N77-22951
- SCHMIDT, R.**  
Reactance control system Patent  
[NASA-CASE-XMF-01598] c 21 N71-15583
- SCHMIDT, R. F.**  
Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27460  
Electronic scanning of 2-channel monopulse patterns Patent  
[NASA-CASE-GSC-10299-1] c 09 N71-24804  
Dish antenna having switchable beamwidth  
[NASA-CASE-GSC-11760-1] c 33 N75-19516  
Single frequency, two feed dish antenna having switchable beamwidth  
[NASA-CASE-GSC-11968-1] c 32 N76-15329  
Variable beamwidth antenna  
[NASA-CASE-GSC-11862-1] c 32 N76-18295  
Switchable beamwidth monopulse method and system  
[NASA-CASE-GSC-11924-1] c 33 N76-27472  
Focal axis resolver for offset reflector antennas  
[NASA-CASE-GSC-12630-1] c 33 N83-36355
- SCHMIDT, W. G.**  
Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent  
[NASA-CASE-LAR-10173-1] c 27 N71-14090
- SCHMITT, A. L.**  
Sun angle calculator  
[NASA-CASE-MSC-12617-1] c 35 N76-29552
- SCHMITZ, B. W.**  
Trajectory-correction propulsion system Patent  
[NASA-CASE-XNP-01104] c 28 N70-39931
- SCHMITZ, F. H.**  
Acoustically swept rotor  
[NASA-CASE-ARC-11106-1] c 05 N80-14107
- SCHNEIDER, R. T.**  
Non-equilibrium radiation nuclear reactor  
[NASA-CASE-HQN-10841-1] c 73 N78-19920  
Safety flywheel  
[NASA-CASE-HQN-10888-1] c 44 N79-14527
- SCHNEIDER, W. C.**  
Auger attachment method for insulation  
[NASA-CASE-MSC-12615-1] c 37 N78-19437  
Diced tile thermal protection for spacecraft  
[NASA-CASE-MSC-18366-1] c 24 N79-23142
- SCHNITZER, E.**  
Inflatable honeycomb Patent  
[NASA-CASE-XLA-00204] c 32 N70-36536  
Manned space station Patent  
[NASA-CASE-XLA-00258] c 31 N70-38676  
Method of making inflatable honeycomb Patent  
[NASA-CASE-XLA-03492] c 15 N71-22713
- SCHNOPPER, H. W.**  
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer  
[NASA-CASE-XNP-05231] c 14 N73-28491
- SCHOEN, A. H.**  
Honeycomb panels formed of minimal surface periodic tubule layers  
[NASA-CASE-ERC-10384] c 18 N72-25540  
Honeycomb core structures of minimal surface tubule sections  
[NASA-CASE-ERC-10363] c 18 N72-25541  
Expandable space frames  
[NASA-CASE-ERC-10365-1] c 31 N73-32749
- SCHOLL, J. A.**  
Method of forming shapes from planar sheets of thermosetting materials  
[NASA-CASE-NPO-11036] c 15 N72-24522
- SCHOMBURG, C.**  
Densification of porous refractory substrates  
[NASA-CASE-MSC-18737-1] c 24 N83-13171  
High temperature silicon carbide impregnated insulating fabrics  
[NASA-CASE-MSC-18832-1] c 27 N83-18908
- SCHORUM, S. W.**  
High speed binary to decimal conversion system Patent  
[NASA-CASE-XGS-01230] c 08 N71-19544
- SCHRADER, J. H.**  
Multiple input radio receiver Patent  
[NASA-CASE-XLA-00901] c 07 N71-10775  
Cooperative Doppler radar system Patent  
[NASA-CASE-LAR-10403] c 21 N71-11766  
Apparatus for aiding a pilot in avoiding a midair collision between aircraft  
[NASA-CASE-LAR-10717-1] c 21 N73-30641
- SCHREDER, K. D.**  
Broadband stable power multiplier Patent  
[NASA-CASE-XNP-10854] c 10 N71-26331
- SCHROEDER, J. E.**  
Absorbable-susceptor joining of ceramic surfaces  
[NASA-CASE-NPO-15840-1] c 27 N84-22748
- SCHUBERT, F. H.**  
Iodine generator for reclaimed water purification  
[NASA-CASE-MSC-14832-1] c 54 N78-14784
- SCHUBERT, W. W.**  
Enhancement of in vitro guayule propagation  
[NASA-CASE-NPO-15213-1] c 51 N83-17045
- SCHUERER, P. H.**  
Sprayable low density ablator and application process  
[NASA-CASE-MFS-23506-1] c 24 N78-24290  
Cryogenic insulation strength and bond tester  
[NASA-CASE-MFS-25910-1] c 27 N84-11297
- SCHULLER, F. T.**  
Journal bearings  
[NASA-CASE-LEW-11076-1] c 37 N74-21061  
Journal Bearings  
[NASA-CASE-LEW-11076-2] c 37 N74-32921  
Lubricated journal bearing  
[NASA-CASE-LEW-11076-3] c 37 N75-30562  
Fluid journal bearings  
[NASA-CASE-LEW-11076-4] c 37 N76-15461
- SCHULTZ, D. F.**  
Steam cooled rich-burn combustor liner  
[NASA-CASE-LEW-13609-1] c 25 N83-17628  
Heat pipes to reduce engine exhaust emissions  
[NASA-CASE-LEW-12590-1] c 37 N84-22958
- SCHUMACHER, L. L.**  
Wide angle sun sensor  
[NASA-CASE-NPO-13327-1] c 35 N75-23910
- SCHUSTER, D. M.**  
Antenna beam-shaping apparatus Patent  
[NASA-CASE-XNP-00611] c 09 N70-35219  
Parabolic reflector horn feed with spillover correction Patent  
[NASA-CASE-XNP-00540] c 09 N70-35382  
Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent  
[NASA-CASE-XNP-01193] c 10 N71-16057
- SCHUSTER, M. A.**  
Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612
- SCHUTT, J. B.**  
Alkali-metal silicate protective coating  
[NASA-CASE-XGS-04119] c 18 N69-39979  
Fire resistant coating composition Patent  
[NASA-CASE-GSC-10072] c 18 N71-14014  
Method for etching copper Patent  
[NASA-CASE-XGS-06306] c 17 N71-16044  
Alkali metal silicate protective coating Patent  
[NASA-CASE-XGS-04799] c 18 N71-24183  
Phototropic composition of matter  
[NASA-CASE-XGS-03736] c 14 N72-22443  
Potassium silicate zinc coatings  
[NASA-CASE-GSC-10381-1] c 18 N72-23581  
Ultraviolet light reflective coating  
[NASA-CASE-GSC-11786-1] c 24 N76-24363  
Remote sensing of vegetation and soil using microwave ellipsometry  
[NASA-CASE-GSC-11976-1] c 43 N78-10529  
Alkali-metal silicate binders and methods of manufacture  
[NASA-CASE-GSC-12303-1] c 24 N79-31347  
Diffusely reflecting paints including polytetrafluoroethylene and method of manufacture  
[NASA-CASE-GSC-12883-1] c 27 N84-24806
- SCHUTZENHOFER, L. A.**  
Apparatus for reducing aerodynamic noise in a wind tunnel  
[NASA-CASE-MFS-23099-1] c 09 N76-23273
- SCHWAB, W. B.**  
Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-1] c 31 N78-17237  
Closed loop spray cooling apparatus  
[NASA-CASE-LEW-11981-2] c 34 N79-20336
- SCHWARTZ, I. R.**  
Abating exhaust noises in jet engines  
[NASA-CASE-ARC-10712-1] c 07 N74-33218
- SCHWARZ, F. C.**  
Saturation current protection apparatus for saturable core transformers Patent  
[NASA-CASE-ERC-10075] c 09 N71-24800  
Unsaturation saturable core transformer Patent  
[NASA-CASE-ERC-10125] c 09 N71-24893  
Saturation current protection apparatus for saturable core transformers  
[NASA-CASE-ERC-10075-2] c 09 N72-22196  
Load-insensitive electrical device  
[NASA-CASE-XER-11046] c 09 N72-22203  
Analog Signal to Discrete Time Interval Converter (ASDTIC)  
[NASA-CASE-ERC-10048] c 09 N72-25251  
Controllable load insensitive power converters  
[NASA-CASE-ERC-10268] c 09 N72-25252  
Load insensitive electrical device  
[NASA-CASE-XER-11046-2] c 33 N74-22864
- SCHWINGHAMER, R. J.**  
Angular measurement system Patent  
[NASA-CASE-XMF-00447] c 14 N70-33179  
Space vehicle electrical system Patent  
[NASA-CASE-XMF-00517] c 03 N70-34157  
Electrical discharge apparatus for forming Patent  
[NASA-CASE-XMF-00375] c 15 N70-34249

- Electro-optical alignment control system Patent  
[NASA-CASE-XMF-00908] c 14 N70-40238  
Method and apparatus for precision sizing and joining  
of large diameter tubes Patent  
[NASA-CASE-XMF-05114] c 15 N71-17650  
Magnetomotive metal working device Patent  
[NASA-CASE-XMF-03793] c 15 N71-24833  
Method and apparatus for precision sizing and joining  
of large diameter tubes Patent  
[NASA-CASE-XMF-05114-3] c 15 N71-24865  
Method and apparatus for precision sizing and joining  
of large diameter tubes Patent  
[NASA-CASE-XMF-05114-2] c 15 N71-26148
- SCHWUTTKE, G. H.**  
Growth of silicon carbide crystals on a seed while pulling  
silicon crystals from a melt  
[NASA-CASE-NPO-13969-1] c 76 N79-23798  
Method of increasing minority carrier lifetime in silicon  
web or the like  
[NASA-CASE-NPO-15530-1] c 76 N83-35888
- SCIACCA, T. P.**  
Device for measuring electron-beam intensities and for  
subjecting materials to electron irradiation in an electron  
microscope  
[NASA-CASE-XGS-01725] c 14 N69-39982
- SCOGGINS, J. R.**  
Meteorological balloon Patent  
[NASA-CASE-XMF-04163] c 02 N71-23007
- SCOPELIANOS, A. G.**  
Process for the preparation of  
polycarbonylphosphazenes  
[NASA-CASE-ARC-11176-2] c 27 N81-27271  
Carbonylcyclotriphosphazenes and their polymers  
[NASA-CASE-ARC-11176-1] c 27 N82-18389  
Carbonylmethylene-substituted phosphazenes and  
polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750
- SCOTT, C. E.**  
Magnifying scratch gage force transducer  
[NASA-CASE-LAR-10496-1] c 14 N72-22437
- SCOTT, C. N.**  
Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708
- SCOTT, D. R.**  
Electrical self-aligning connector  
[NASA-CASE-MFS-25211-1] c 33 N80-32651  
Solar tracking system  
[NASA-CASE-MFS-23999-1] c 44 N81-24520  
Electrical self-aligning connector  
[NASA-CASE-MFS-25211-2] c 33 N84-14423
- SCOTT, R. F.**  
Burrowing apparatus  
[NASA-CASE-XNP-07169] c 15 N73-32362
- SCOTT, R. R.**  
Solar cell including second surface mirrors Patent  
[NASA-CASE-NPO-10109] c 03 N71-11049
- SCOTT, S. G.**  
Nonmagnetic thermal motor for a magnetometer  
[NASA-CASE-XAR-03786] c 09 N69-21313
- SCOTT, W. L.**  
Tactile sensing means for prosthetic limbs  
[NASA-CASE-MFS-16570-1] c 05 N73-32013
- SCOW, J.**  
Multiple circuit switch apparatus with improved pivot  
actuator structure Patent  
[NASA-CASE-XAC-03777] c 10 N71-15909
- SCROOP, F. R.**  
Relief container  
[NASA-CASE-XMS-06761] c 05 N69-23192
- SCUDDER, L. R.**  
Application of semiconductor diffusants to solar cells  
by screen printing  
[NASA-CASE-LEW-12775-1] c 44 N79-11468
- SCULLY, P. T.**  
Collapsible reflector Patent  
[NASA-CASE-XMS-03454] c 09 N71-20658
- SEA, R. G.**  
Junction range finder  
[NASA-CASE-KSC-10108] c 14 N73-25461
- SEABAUGH, A. C.**  
Controlled in situ etch-back  
[NASA-CASE-NPO-15625-1] c 76 N83-20789
- SEAMAN, C. H.**  
Method and apparatus for Doppler frequency modulation  
of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510
- SEATON, A. F.**  
Phase multiplying electronic scanning system Patent  
[NASA-CASE-NPO-10302] c 10 N71-26142  
Virtual wall slot circularly polarized planar array  
antenna  
[NASA-CASE-NPO-10301] c 07 N72-11148  
Conical reflector antenna  
[NASA-CASE-NPO-10303] c 07 N72-22127
- SEATON, B. L.**  
Electrostatic plasma modulator for space vehicle  
re-entry communication Patent  
[NASA-CASE-XLA-01400] c 07 N70-41331  
Means for communicating through a layer of ionized  
gases Patent  
[NASA-CASE-XLA-01127] c 07 N70-41372  
Method for measuring the characteristics of a gas  
Patent  
[NASA-CASE-XLA-03375] c 16 N71-24074  
Laser calibrator Patent  
[NASA-CASE-XLA-03410] c 16 N71-25914
- SEAY, B. P., JR.**  
Burst synchronization detection system Patent  
[NASA-CASE-XMS-05605-1] c 10 N71-19468
- SEBACHER, D. I.**  
Solar hydrogen generator  
[NASA-CASE-LAR-11361-1] c 44 N77-22607
- SECKEL, E.**  
Integrated lift/drag controller for aircraft  
[NASA-CASE-ARC-10456-1] c 05 N75-12630
- SECRETAN, L.**  
Rotary bead dropper and selector for testing  
micrometeorite detectors Patent  
[NASA-CASE-XGS-03304] c 09 N71-22988
- SEEGMILLER, H. L. B.**  
Inertia diaphragm pressure transducer Patent  
[NASA-CASE-XAC-02981] c 14 N71-21072
- SEIDEL, B. L.**  
Antenna feed system for receiving circular polarization  
and transmitting linear polarization  
[NASA-CASE-NPO-14362-1] c 32 N80-16261
- SEIDENBERG, B.**  
Method and apparatus for determining the contents of  
contained gas samples  
[NASA-CASE-GSC-10903-1] c 14 N73-12444  
Low outgassing polydimethylsiloxane material and  
preparation thereof  
[NASA-CASE-GSC-11358-1] c 06 N73-26100
- SEILER, E. E.**  
Method for leakage testing of tanks Patent  
[NASA-CASE-XMF-02392] c 32 N71-24285
- SEITZ, T. E.**  
Heat activated cell with alkali anode and alkali salt  
electrolyte Patent  
[NASA-CASE-LEW-11358] c 03 N71-26084
- SEITZINGER, V. F.**  
Unfired-ceramic flame-resistant insulation and method  
of making the same Patent  
[NASA-CASE-XMF-01030] c 18 N70-41583  
Ceramic insulation for radiant heating environments and  
method of preparing the same Patent  
[NASA-CASE-MFS-14253] c 33 N71-24858
- SELCUK, M. K.**  
Solar energy collection system  
[NASA-CASE-NPO-13810-1] c 44 N77-32582  
Non-tracking solar energy collector system  
[NASA-CASE-NPO-13813-1] c 44 N78-31526  
Non-tracking solar energy collector system  
[NASA-CASE-NPO-13817-1] c 44 N79-11471  
Solar energy receiver for a Stirling engine  
[NASA-CASE-NPO-14619-1] c 44 N81-17518  
Solar concentrator protective system  
[NASA-CASE-NPO-15662-1] c 44 N84-28204
- SELLEN, J. M., JR.**  
Apparatus for field strength measurement of a space  
vehicle Patent  
[NASA-CASE-XLE-00820] c 14 N71-16014  
Apparatus for measuring electric field strength on the  
surface of a model vehicle Patent  
[NASA-CASE-XLE-02038] c 09 N71-18086
- SELLERS, F. J.**  
Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31603
- SENNOTT, J. W.**  
Navigation system and method  
[NASA-CASE-GSC-12508-1] c 04 N84-22546
- SENSENY, R. M.**  
Fire extinguishing apparatus having a slidable mass for  
a penetrator nozzle  
[NASA-CASE-KSC-11064-1] c 31 N81-14137
- SERAFINI, T. T.**  
Preparation of polyimides from mixtures of monomeric  
diamines and esters of polycarboxylic acids  
[NASA-CASE-LEW-11325-1] c 06 N73-27880  
Curing agent for polyepoxides and epoxy resins and  
composites cured therewith  
[NASA-CASE-LEW-13226-1] c 27 N81-17260  
Composition and method for making polyimide  
resin-reinforced fabric  
[NASA-CASE-LEW-12933-1] c 27 N81-19296  
Low temperature cross linking polyimides  
[NASA-CASE-LEW-12678-2] c 27 N83-29382
- SETZER, D.**  
Self-charging metering and dispensing device for  
fluids  
[NASA-CASE-MSC-20275-1] c 35 N83-17856
- SEWARD, H. H.**  
Compact spectroradiometer  
[NASA-CASE-HQN-10683] c 14 N71-34389  
Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409
- SEYFFERT, M. B.**  
Controlled glass bead peening Patent  
[NASA-CASE-XLA-07390] c 15 N71-18616
- SEYL, J. W.**  
Dynamic Doppler simulator Patent  
[NASA-CASE-XMS-05454-1] c 07 N71-12391
- SHACK, R. V.**  
Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541
- SHADY, D. L.**  
Device for tensioning test specimens within an  
hermetically sealed chamber  
[NASA-CASE-MFS-23281-1] c 35 N77-22450
- SHAEFER, D. H.**  
Analog to digital converter for two-dimensional radiant  
energy array computers  
[NASA-CASE-GSC-11839-3] c 60 N77-32731
- SHAFFER, J. I.**  
Solid propellant rocket motor nozzle  
[NASA-CASE-NPO-11458] c 26 N72-23810  
Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784  
Preparing oxidizer coated metal fuel particles  
[NASA-CASE-NPO-11975-1] c 28 N74-33209  
Solid propellant motor  
[NASA-CASE-NPO-11458A] c 20 N78-32179
- SHAFFER, C. V.**  
Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11256  
Multiloop RC active filter apparatus having low parameter  
sensitivity with low amplifier gain  
[NASA-CASE-ARC-10192] c 09 N72-21245
- SHAI, C. M.**  
Alkali-metal silicate protective coating  
[NASA-CASE-XGS-04119] c 18 N69-39979  
Alkali metal silicate protective coating Patent  
[NASA-CASE-XGS-04799] c 18 N71-24183
- SHAI, M. C.**  
Electrically conductive thermal control coatings  
[NASA-CASE-GSC-12207-1] c 24 N79-14156  
Diffusely reflecting paints including  
polytetrafluoroethylene and method of manufacture  
[NASA-CASE-GSC-12883-1] c 27 N84-24806
- SHALHOUB, I. M.**  
The 1,2,4-oxadiazole elastomers  
[NASA-CASE-ARC-11253-1] c 27 N81-17262  
Bifunctional monomers having terminal oxime and cyano  
or amidine groups  
[NASA-CASE-ARC-11253-3] c 27 N81-24258  
Preparation of crosslinked 1,2,4-oxadiazole polymer  
[NASA-CASE-ARC-11253-2] c 27 N82-24338
- SHALTENS, R. K.**  
Method and apparatus for sputtering utilizing an  
apertured electrode and a pulsed substrate bias  
[NASA-CASE-LEW-10820-1] c 17 N73-24569
- SHANKAR, N. K.**  
Ultrastable calibrated light source  
[NASA-CASE-MSC-12293-1] c 14 N72-27411
- SHANKS, G. C.**  
Compression test apparatus  
[NASA-CASE-MSC-16723-1] c 35 N83-21312
- SHANNON, R. L.**  
Plasma cleaning device  
[NASA-CASE-MFS-22906-1] c 75 N78-27913
- SHANNON, R. R.**  
Optical system  
[NASA-CASE-NPO-15801-1] c 74 N83-25541
- SHAPIRO, H.**  
Omni-directional anisotropic molecular trap Patent  
[NASA-CASE-XGS-00783] c 30 N71-17768  
Trap for preventing diffusion pump backstreaming  
[NASA-CASE-GSC-10518-1] c 15 N72-22489
- SHARMA, G. C.**  
Method for sequentially processing a multi-level  
interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-15670-1] c 33 N82-33634  
Method for sequentially processing a multi-level  
interconnect circuit in a vacuum chamber  
[NASA-CASE-MFS-256704-1] c 33 N84-22884
- SHARMA, M.**  
Apparatus for fiber optic liquid level sensing  
[NASA-CASE-MSC-18674-1] c 74 N81-24607
- SHARMA, M. M.**  
Optical crystal temperature gauge with fiber optic  
connections  
[NASA-CASE-MSC-18627-1] c 74 N82-30071

- SHARPE, M. H.**  
 Sprayable low density ablator and application process  
 [NASA-CASE-MFS-23508-1] c 24 N78-24290  
 Method for making an aluminum or copper substrate  
 panel for selective absorption of solar energy  
 [NASA-CASE-MFS-23518-1] c 44 N79-11469  
 Aluminum or copper substrate panel for selective  
 absorption of solar energy  
 [NASA-CASE-MFS-23518-3] c 44 N80-18452  
 Cork-resin ablative insulation for complex surfaces and  
 method for applying the same  
 [NASA-CASE-MFS-23826-1] c 24 N80-26388
- SHATAZSKY, R.**  
 Tape guidance system and apparatus for the provision  
 thereof Patent  
 [NASA-CASE-XNP-09453] c 08 N71-19420
- SHATTUCK, R. D.**  
 Protection of serially connected solar cells against open  
 circuits by the use of shunting diode Patent  
 [NASA-CASE-XLE-04535] c 03 N71-23354
- SHAW, C. S.**  
 Exhaust flow deflector  
 [NASA-CASE-LAR-11570-1] c 34 N78-18384
- SHAW, D. S.**  
 Metric half-span model support system  
 [NASA-CASE-LAR-12441-1] c 09 N82-23254
- SHAW, G. C.**  
 Process for the leaching of AP from propellant  
 [NASA-CASE-NPO-14108-1] c 28 N80-23471  
 Recovery of aluminum from composite propellants  
 [NASA-CASE-NPO-14110-1] c 28 N81-15119
- SHAW, R. C.**  
 Device and method for frictionally testing materials for  
 ignitability  
 [NASA-CASE-MSC-20622-1] c 14 N84-22586
- SHEARER, C. H.**  
 Stabilized lanthanum sulphur compounds  
 [NASA-CASE-NPO-16135-1] c 25 N83-24572
- SHEETS, R. E.**  
 Detector absorptivity measuring method and  
 apparatus  
 [NASA-CASE-LAR-10907-1] c 35 N78-29551
- SHEFSIEK, P. K.**  
 Method and apparatus for distillation of liquids Patent  
 [NASA-CASE-XNP-08124] c 15 N71-27184  
 Method for distillation of liquids  
 [NASA-CASE-XNP-08124-2] c 06 N73-13129
- SHEIBLEY, D. W.**  
 Gels as battery separators for soluble electrode cells  
 [NASA-CASE-LEW-12384-1] c 44 N77-22608  
 Inorganic-organic separators for alkaline batteries  
 [NASA-CASE-LEW-12649-1] c 44 N78-25530  
 Formulated plastic separators for soluble electrode  
 cells  
 [NASA-CASE-LEW-12358-1] c 44 N79-17313  
 In situ self cross-linking of polyvinyl alcohol battery  
 separators  
 [NASA-CASE-LEW-12672-1] c 44 N79-25481  
 Method of cross-linking polyvinyl alcohol and other water  
 soluble resins  
 [NASA-CASE-LEW-13103-1] c 27 N80-32516  
 In-situ cross linking of polyvinyl alcohol  
 [NASA-CASE-LEW-13135-2] c 27 N81-24257  
 Polyvinyl alcohol battery separator containing inert  
 filler  
 [NASA-CASE-LEW-13558-1] c 44 N81-27615  
 Cross-linked polyvinyl alcohol and method of making  
 same  
 [NASA-CASE-LEW-13101-2] c 23 N81-29160  
 Alkaline battery containing a separator of a cross-linked  
 copolymer of vinyl alcohol and unsaturated carboxylic  
 acid  
 [NASA-CASE-LEW-13102-1] c 44 N81-29531  
 Method of making formulated plastic separators for  
 soluble electrode cells  
 [NASA-CASE-LEW-12358-2] c 25 N82-21268  
 Advanced inorganic separators for alkaline batteries  
 [NASA-CASE-LEW-13171-1] c 44 N82-26708  
 Polyvinyl alcohol cross-linked with two aldehydes  
 [NASA-CASE-LEW-13504-1] c 25 N83-13188  
 Polyvinyl alcohol battery separator containing inert  
 filler  
 [NASA-CASE-LEW-13558-2] c 44 N83-29805  
 Advanced inorganic separators for alkaline batteries and  
 method of making the same  
 [NASA-CASE-LEW-13171-2] c 44 N83-32176  
 Additive for zinc electrodes  
 [NASA-CASE-LEW-13288-1] c 33 N84-14422
- SHELPUK, B.**  
 Double-sided solar cell package  
 [NASA-CASE-NPO-14199-1] c 44 N79-25482
- SHELTON, Q. B.**  
 Notch filter  
 [NASA-CASE-MFS-23303-1] c 32 N77-18307
- System for the measurement of ultra-low stray light  
 levels  
 [NASA-CASE-MFS-23513-1] c 74 N79-11865
- SHELTON, J. P., JR.**  
 Monopulse tracking system Patent  
 [NASA-CASE-XGS-01155] c 10 N71-21483
- SHELTON, R. D.**  
 Electron beam instrument for measuring electric fields  
 Patent  
 [NASA-CASE-XMF-10289] c 14 N71-23899
- SHEPARD, C. E.**  
 Electric arc apparatus Patent  
 [NASA-CASE-XAC-01877] c 09 N71-20818
- SHEPARD, L. F.**  
 Space suit  
 [NASA-CASE-MSC-12609-1] c 05 N73-32012
- SHEPARD, M. F., JR.**  
 Solar cell module  
 [NASA-CASE-NPO-14487-1] c 44 N79-31753
- SHEPARD, S. K.**  
 Peak polarity selector Patent  
 [NASA-CASE-FRC-10010] c 10 N71-24862
- SHER, A.**  
 Photocapsitive image converter  
 [NASA-CASE-LAR-12513-1] c 44 N82-32841
- SHERBURNE, A. E.**  
 Capacitive tank gaging apparatus being independent of  
 liquid distribution  
 [NASA-CASE-MFS-21829] c 14 N72-22442
- SHERFEY, J. M.**  
 Bonded elastomeric seal for electrochemical cells  
 Patent  
 [NASA-CASE-XGS-02631] c 03 N71-23006  
 Frangible electrochemical cell  
 [NASA-CASE-XGS-10010] c 03 N72-15886  
 Process for making sheets with parallel pores of uniform  
 size  
 [NASA-CASE-GSC-10984-1] c 37 N75-26371
- SHERMAN, A.**  
 Annular slit colloid thruster Patent  
 [NASA-CASE-GSC-10708-1] c 28 N71-25213  
 Stirling cycle cryogenic cooler  
 [NASA-CASE-GSC-12697-1] c 31 N82-11312  
 Stirling cycle cryogenic cooler  
 [US-PATENT-4,389,849] c 44 N83-28574  
 Cooling by conversion of para to ortho-hydrogen  
 [NASA-CASE-GSC-12770-1] c 25 N83-29324
- SHERWIN, E. J.**  
 Bonding thermoelectric elements to nonmagnetic  
 refractory metal electrodes  
 [NASA-CASE-XGS-04554] c 15 N89-39786
- SHETH, S.**  
 Flame retardant spandex type polyurethanes  
 [NASA-CASE-MSC-14331-2] c 27 N78-17213  
 Process for spinning flame retardant elastomeric  
 compositions  
 [NASA-CASE-MSC-14331-3] c 27 N79-32282
- SHETH, S. G.**  
 Non-flammable elastomeric fiber from a fluorinated  
 elastomer and containing an halogenated flame  
 retardant  
 [NASA-CASE-MSC-14331-1] c 27 N78-24405
- SHEWMAKE, G. A.**  
 Life raft Patent  
 [NASA-CASE-XMS-00883] c 05 N70-34857  
 Life preserver Patent  
 [NASA-CASE-XMS-00884] c 05 N70-38493  
 Inflatable radar reflector unit Patent  
 [NASA-CASE-XMS-00893] c 07 N70-40063  
 Rescue litter flotation assembly Patent  
 [NASA-CASE-XMS-04170] c 05 N71-22748
- SHIEBER, H.**  
 Prestressed refractory structure Patent  
 [NASA-CASE-XNP-02888] c 18 N71-21088
- SHIGEMOTO, F. H.**  
 Laser fluid velocity detector Patent  
 [NASA-CASE-XAC-10770-1] c 16 N71-24828
- SHILLINGER, G. L., JR.**  
 Spring operated accelerator and constant force spring  
 mechanism therefor  
 [NASA-CASE-ARC-10898-1] c 35 N77-18417
- SHIM, I. H.**  
 Recorder/processor apparatus  
 [NASA-CASE-GSC-11583-1] c 35 N74-15831
- SHIMA, R.**  
 Multitarget sequential sputtering apparatus  
 [NASA-CASE-NPO-13345-1] c 37 N75-19684
- SHIMADA, K.**  
 Thermionic diode switch Patent  
 [NASA-CASE-NPO-10404] c 03 N71-12255  
 Cavity emitter for thermionic converter Patent  
 [NASA-CASE-NPO-10412] c 09 N71-28421  
 Thermal to electrical power conversion system with  
 solid-state switches with Seebeck effect compensation  
 [NASA-CASE-NPO-11388] c 03 N72-23048
- Electric power generation system directory from laser  
 power  
 [NASA-CASE-NPO-13308-1] c 38 N75-30524  
 Thermostatically controlled non-tracking type solar  
 energy concentrator  
 [NASA-CASE-NPO-13487-1] c 44 N76-14802
- SHIMANSKY, R. A.**  
 Safety shield for vacuum/pressure chamber viewing  
 port  
 [NASA-CASE-GSC-12513-1] c 31 N81-19343
- SHIMIZU, M.**  
 Non-invasive method and apparatus for measuring  
 pressure within a pliable vessel  
 [NASA-CASE-ARC-11264-2] c 52 N83-29991
- SHIMODA, K.**  
 Method and apparatus for stabilizing a gaseous optical  
 maser Patent  
 [NASA-CASE-XGS-03644] c 16 N71-18614
- SHIRA, C. S.**  
 Method of heat treating age-hardenable alloys  
 [NASA-CASE-XNP-01311] c 26 N75-29238
- SHIRE, L. I.**  
 Direct heating surface combustor  
 [NASA-CASE-LEW-11877-1] c 34 N78-27357
- SHLICHTA, P. J.**  
 Method and apparatus for growth of crystals by pressure  
 reduction of supercritical or subcritical solution  
 [NASA-CASE-NPO-15772-1] c 78 N82-23031  
 Electromigration process for the purification of molten  
 silicon during crystal growth  
 [NASA-CASE-NPO-14831-1] c 78 N82-30105  
 Method of making macrocrystalline or single crystal  
 semiconductive material and products produced thereby  
 [NASA-CASE-NPO-15904-1] c 78 N83-21893  
 Method and apparatus for minimizing convection during  
 crystal growth from solution  
 [NASA-CASE-NPO-15811-1] c 78 N84-12968  
 Absorbable-susceptor joining of ceramic surfaces  
 [NASA-CASE-NPO-15640-1] c 27 N84-22748  
 Glass heating panels and method for preparing the same  
 from architectural reflective glass  
 [NASA-CASE-NPO-15753-1] c 27 N84-33589
- SHLOSINGER, A. P.**  
 Heat pipe with dual working fluids  
 [NASA-CASE-ARC-10188] c 34 N78-17336  
 Multi-chamber controllable heat pipe  
 [NASA-CASE-ARC-10189] c 34 N78-17337
- SHORES, P. W.**  
 Position determination systems  
 [NASA-CASE-MSC-12593-1] c 17 N78-21250  
 Doppler radar having phase modulation of both  
 transmitted and reflected return signals  
 [NASA-CASE-MSC-18675-1] c 32 N84-22820
- SHORTTRIDGE, S. R.**  
 Switching circuit employing regeneratively connected  
 complementary transistors Patent  
 [NASA-CASE-XNP-02654] c 10 N70-42032
- SHRIVER, C. B.**  
 Method of making a filament-wound container Patent  
 [NASA-CASE-XLE-03803-2] c 15 N71-17651  
 Filament wound container Patent  
 [NASA-CASE-XLE-03803] c 15 N71-23818  
 Panelized high performance multilayer insulation  
 Patent  
 [NASA-CASE-MFS-14023] c 33 N71-25351
- SHRIVER, C. L.**  
 Multichannel logarithmic RF level detector  
 [NASA-CASE-LAR-11021-1] c 32 N76-14321
- SHRIVER, E. L.**  
 Apparatus for determining the deflection of an electron  
 beam impinging on a target Patent  
 [NASA-CASE-XMF-06817] c 09 N71-24843  
 Shock wave convergence apparatus  
 [NASA-CASE-MFS-20890] c 14 N72-22439  
 Self-energized plasma compressor  
 [NASA-CASE-MFS-22145-1] c 75 N75-13625  
 Two stage light gas-plasma projectile accelerator  
 [NASA-CASE-MFS-22287-1] c 75 N76-14931  
 Self-energized plasma compressor  
 [NASA-CASE-MFS-22145-2] c 75 N76-17951  
 Semiconductor projectile impact detector  
 [NASA-CASE-MFS-23008-1] c 35 N78-18390
- SHROCK, C. G.**  
 Determination of antimicrobial susceptibilities on  
 infected urines without isolation  
 [NASA-CASE-GSC-12046-1] c 52 N79-14750
- SHUBE, E. E.**  
 Nose cone mounted heat resistant antenna Patent  
 [NASA-CASE-XMS-04312] c 07 N71-22884
- SHULL, T. A.**  
 Digital demodulator  
 [NASA-CASE-LAR-12659-1] c 33 N82-26570

## SHULMAN, A. R.

Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence  
[NASA-CASE-GSC-11133-1] c 23 N72-11568

Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932

## SHUMATE, M. S.

Method and apparatus for aligning a laser beam projector  
Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125

Differential optoacoustic absorption detector  
[NASA-CASE-NPO-13759-1] c 74 N78-17867

Method and apparatus for Doppler frequency modulation of radiation  
[NASA-CASE-NPO-14524-1] c 32 N80-24510

Stark cell optoacoustic detection of constituent gases in sample  
[NASA-CASE-NPO-14143-1] c 25 N81-14015

## SHUMKA, A.

Space-charge-limited solid-state triode  
[NASA-CASE-NPO-13064-1] c 33 N79-11314

Synchronized voltage contrast display analysis system  
[NASA-CASE-NPO-14567-1] c 33 N83-18996

## SHURE, L. I.

Protected isotope heat source  
[NASA-CASE-LEW-11227-1] c 73 N75-30876

## SHUTE, D. I.

Reference apparatus for medical ultrasonic transducer  
[NASA-CASE-ARC-10753-1] c 54 N75-27760

## SIDMAN, K. R.

Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSC-14331-1] c 27 N76-24405

Flame retardant spandex type polyurethanes  
[NASA-CASE-MSC-14331-2] c 27 N78-17213

Process for spinning flame retardant elastomeric compositions  
[NASA-CASE-MSC-14331-3] c 27 N78-32262

Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-1] c 27 N82-16238

Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324

Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-2] c 54 N84-23113

Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-1] c 54 N84-28484

## SIDORAK, L. G.

Solar cell shingle  
[NASA-CASE-LEW-12587-1] c 44 N77-31601

## SIEBERT, C. J.

Flexible/rigidifiable cable assembly  
[NASA-CASE-MSC-13512-1] c 15 N72-22485

## SIEGEL, B.

Resonant infrasonic gauging apparatus  
[NASA-CASE-MSC-11847-1] c 14 N72-11363

## SIEGEL, C. M.

Epitaxial thinning process  
[NASA-CASE-NPO-15786-1] c 76 N84-35112

## SIEGMAN, A. E.

Laser system with an antiresonant optical ring  
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## SILVERMAN, J. R.

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## SILVERTSON, W. E., JR.

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## SIMMONDS, M. R.

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## SIMMONDS, P. G.

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## SIMMONS, G. M.

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## SIMON, M. K.

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## SIMON, S. L.

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## SIMPSON, L. G.

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## SIMPSON, J. G.

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## SIMPSON, W. E.

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## SIMPSON, W. G.

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## SIMS, C. R.

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## SINCLAIR, A. R.

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## SINGER, S.

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## SINHA, M. P.

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## SIROCKY, P. J.

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## SIVERTSON, W. E., JR.

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Rate data encoder  
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## SIVITER, J. H., JR.

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## SIVLEY, J. B.

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## SIZEMORE, K. O.

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## SLATER, R. J.

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## SLAYDEN, M. D.

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## SLEEMAN, W. C., JR.

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## SLEMP, W. S.

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## SLIFER, L. W., JR.

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## SLINEY, H. E.

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## SMALL, W. J.

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- SMIALEK, J. L.**  
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- SMILOVITZ, K.**  
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- SMISER, L. W.**  
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- SMITH, A. B.**  
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- SMITH, C.**  
Counter and shift register Patent  
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- SMITH, D.**  
Brazing alloy Patent  
[NASA-CASE-XNP-03063] c 17 N71-23365
- SMITH, D. L.**  
Hall effect transducer  
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- SMITH, E. B.**  
Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999
- SMITH, E. W.**  
Barium release system  
[NASA-CASE-LAR-10670-1] c 06 N73-30097  
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[NASA-CASE-LAR-10670-2] c 15 N74-27360
- SMITH, G. E.**  
Inflatable device for installing strain gage bridges  
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- SMITH, H. A.**  
Spherical tank gauge Patent  
[NASA-CASE-XMS-06236] c 14 N71-21007  
Emergency space-suit helmet  
[NASA-CASE-MSC-10954-1] c 54 N78-18761
- SMITH, H. E.**  
Digital computing cardiometer  
[NASA-CASE-MFS-20284-1] c 52 N74-12778  
Automatic weld torch guidance control system  
[NASA-CASE-MFS-25807] c 37 N83-20154
- SMITH, H. J.**  
Variable resistance constant tension and lubrication device  
[NASA-CASE-KSC-10723-1] c 37 N75-13265
- SMITH, J. A.**  
Thermal insulation protection means  
[NASA-CASE-MSC-12737-1] c 24 N79-25142
- SMITH, J. G.**  
Satellite personal communications system  
[NASA-CASE-NPO-14480-1] c 32 N80-20448
- SMITH, J. P.**  
Energy management system for glider type vehicle Patent  
[NASA-CASE-XFR-00756] c 02 N71-13421
- SMITH, J. R., JR.**  
Balanced bellows spirometer  
[NASA-CASE-XAR-01547] c 05 N69-21473  
Temperature compensated solid state differential amplifier Patent  
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Transfer valve Patent  
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Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent  
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- SMITH, J. W.**  
Apparatus for damping operator induced oscillations of a controlled system  
[NASA-CASE-FRC-11041-1] c 33 N82-18493
- SMITH, L.**  
Low gravity phase separator  
[NASA-CASE-MSC-14773-1] c 35 N78-12390
- SMITH, L. G.**  
Ionospheric battery Patent  
[NASA-CASE-XGS-01593] c 03 N70-35408
- SMITH, L. H., JR.**  
Reverse pitch fan with divided splitter  
[NASA-CASE-LEW-12760-1] c 07 N77-17059
- SMITH, L. S.**  
Polarity sensitive circuit Patent  
[NASA-CASE-XNP-00952] c 10 N71-23271
- SMITH, M.**  
Silica reusable surface insulation  
[NASA-CASE-ARC-10721-1] c 27 N76-22376  
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[NASA-CASE-ARC-11169-1] c 24 N79-24062  
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- Spray coating apparatus having a rotatable workpiece holder  
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- SMITH, N. J.**  
Calibrating pressure switch  
[NASA-CASE-XMF-04494-1] c 33 N79-33392
- SMITH, R. E.**  
High-temperature, high-pressure optical cell  
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- SMITH, R. W.**  
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- SMITH, S. F.**  
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[NASA-CASE-GSC-12804-1] c 33 N83-35228
- SMITH, T. B., III**  
Display research collision warning system  
[NASA-CASE-HQN-10703] c 21 N73-13643
- SMITH, W. O.**  
Star tracking reticles and process for the production thereof  
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[NASA-CASE-GSC-11188-1] c 14 N73-32320  
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- SMITH, W. R.**  
Production of high purity I-123  
[NASA-CASE-LEW-10518-1] c 24 N72-33681
- SMITH, W. W.**  
Trajectory-correction propulsion system Patent  
[NASA-CASE-XNP-01104] c 28 N70-39931
- SMITHRICK, J. J.**  
Oxygen recombination in individual pressure vessel nickel-hydrogen batteries  
[NASA-CASE-LEW-13822-1] c 33 N84-29084
- SMOOT, G. F.**  
Low gravity phase separator  
[NASA-CASE-MSC-14773-1] c 35 N78-12390
- SMYLY, R. E.**  
Liquid-gas separator for zero gravity environment Patent  
[NASA-CASE-XMS-01492] c 05 N70-41297
- SMYLY, H. M.**  
Differential pressure control  
[NASA-CASE-MFS-14216] c 14 N73-13418  
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[NASA-CASE-MFS-23717-1] c 52 N81-25660  
Space probe/satellite ejection apparatus for spacecraft  
[NASA-CASE-MFS-15429-1] c 18 N84-22609
- SNEEDEN, R. J.**  
Gas turbine combustion apparatus Patent  
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- SNODDY, L. G.**  
Insert facing tool  
[NASA-CASE-MFS-21485-1] c 37 N74-25968
- SNYDER, J. A.**  
Injector for use in high voltage isolators for liquid feed lines  
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- SNYDER, L. M.**  
Particle detection apparatus including a ballistic pendulum Patent  
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- SNYDER, P. K.**  
Spinning disk calibration method and apparatus for laser Doppler velocimeter  
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- SNYDER, R. S.**  
Method of crystallization  
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- SODD, V. J.**  
Production of high purity I-123  
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- SOFFEN, G. A.**  
Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754
- SOHL, G.**  
Focussing system for an ion source having apertured electrodes Patent  
[NASA-CASE-XNP-03332] c 09 N71-10618  
Ion engine casing construction and method of making same Patent  
[NASA-CASE-XNP-06942] c 28 N71-23293
- SOINI, H. E.**  
Apparatus for measuring thermal conductivity Patent  
[NASA-CASE-XGS-01052] c 14 N71-15992
- SOKOLOWSKI, D. E.**  
Heat exchanger  
[NASA-CASE-LEW-12252-1] c 34 N79-13288
- SOLOMON, G.**  
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- SOLTIS, D. G.**  
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- SOMOANO, R. B.**  
Durable antistatic coating for polymethylmethacrylate  
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- SONNENSCHN, C. M.**  
Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028  
Focused laser Doppler velocimeter  
[NASA-CASE-MFS-23178-1] c 35 N77-10493
- SONNENSCHN, G.**  
Method for attaching a fused-quartz mirror to a conductive metal substrate  
[NASA-CASE-MFS-23405-1] c 26 N77-29260
- SORENSEN, C. E.**  
Electric arc device for heating gases Patent  
[NASA-CASE-XAC-00319] c 25 N70-41628
- SORENSEN, N. E.**  
Wind tunnel flow generation section  
[NASA-CASE-ARC-10710-1] c 09 N75-12969  
The engine air intake system  
[NASA-CASE-ARC-10761-1] c 07 N77-18154  
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- SOTER, E. J.**  
Modification of one man life raft  
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- SOTHERLUND, A. W., JR.**  
Single action separation mechanism Patent  
[NASA-CASE-XLA-00188] c 15 N71-22874
- SOURS, W. P.**  
Minimech self-deploying boom mechanism  
[NASA-CASE-XGS-10568-1] c 15 N72-18477
- SOVEY, J. S.**  
Modification of the electrical and optical properties of polymers  
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[NASA-CASE-LEW-12940-1] c 72 N80-33186  
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[NASA-CASE-LEW-13881-1] c 72 N83-21903  
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[NASA-CASE-LEW-12919-2] c 70 N84-28565  
Deposition of diamondlike carbon films  
[NASA-CASE-LEW-14080-1] c 27 N84-28986  
Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425
- SOWA, W. W.**  
Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708
- SPADY, A. A., JR.**  
Backpack carrier Patent  
[NASA-CASE-LAR-10056] c 05 N71-12351  
Reduced gravity simulator Patent  
[NASA-CASE-XLA-01787] c 11 N71-16028
- SPAIN, I. L.**  
Hall effect magnetometer  
[NASA-CASE-LEW-11632-2] c 35 N75-13213
- SPALVINS, T.**  
Deposition of alloy films  
[NASA-CASE-LEW-11262-1] c 27 N74-13270
- SPANQ, H. A., III**  
Apparatus for sensor failure detection and correction in a gas turbine engine control system  
[NASA-CASE-LEW-12907-2] c 07 N81-19115
- SPARKS, R. H.**  
Fifth wheel  
[NASA-CASE-FRC-10081-1] c 37 N77-14477
- SPEARMAN, M. L.**  
Translating horizontal tail Patent  
[NASA-CASE-XLA-08801-1] c 02 N71-11043
- SPEISER, R. C.**  
Focussing system for an ion source having apertured electrodes Patent  
[NASA-CASE-XNP-03332] c 09 N71-10618
- SPENCER, B., JR.**  
Variable geometry manned orbital vehicle Patent  
[NASA-CASE-XLA-03691] c 31 N71-15674
- SPENCER, D. J.**  
Data compression system with a minimum time delay unit Patent  
[NASA-CASE-XNP-08832] c 08 N71-12506

- SPENCER, J. L.**  
Electronic strain-level counter  
[NASA-CASE-LAR-10756-1] c 32 N73-26910
- SPENCER, P. R.**  
Radiation direction detector including means for compensating for photocell aging Patent  
[NASA-CASE-XLA-00183] c 14 N70-40239
- SPENCER, R. L.**  
Thickness measuring and injection device Patent  
[NASA-CASE-MFS-20261] c 14 N71-27005  
Ultrasonic scanner for radial and flat panels  
[NASA-CASE-MFS-20335-1] c 35 N74-10415
- SPENCER, R. S.**  
Method of treating the surface of a glass member  
[NASA-CASE-GSC-12110-1] c 27 N77-32308  
Safety shield for vacuum/pressure chamber viewing port  
[NASA-CASE-GSC-12513-1] c 31 N81-19343
- SPIER, R. A.**  
Portable milling tool Patent  
[NASA-CASE-XMF-03511] c 15 N71-22799  
Restraint system for ergometer  
[NASA-CASE-MFS-21048-1] c 14 N73-27377  
Tilting table for ergometer and for other biomedical devices  
[NASA-CASE-MFS-21010-1] c 05 N73-30078  
Vee-notching device  
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- SPIES, R.**  
Observation window for a gas confining chamber  
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- SPITZE, L. A.**  
Process for the preparation of calcium superoxide  
[NASA-CASE-ARC-11053-1] c 25 N79-10162  
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[NASA-CASE-ARC-11245-1] c 28 N82-18401
- SPITZER, C. R.**  
Evaporant holder  
[NASA-CASE-XLA-03105] c 15 N69-27483  
Exposure interlock for oscilloscope cameras  
[NASA-CASE-LAR-10319-1] c 14 N73-32322
- SPITZIG, W. A.**  
Method of making a diffusion bonded refractory coating Patent  
[NASA-CASE-XLE-01604-2] c 15 N71-15610
- SPRECACE, R. P.**  
Method of forming a wick for a heat pipe  
[NASA-CASE-NPO-13391-1] c 34 N76-27515
- SPRINGER, L. R.**  
Digital data reformat/serializer  
[NASA-CASE-NPO-13678-1] c 60 N79-20751
- SPRINGETT, J. C.**  
Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent  
[NASA-CASE-XNP-00911] c 08 N70-41961  
Audio system with means for reducing noise effects  
[NASA-CASE-NPO-11631] c 10 N73-12244
- SPRINGFIELD, C. L.**  
Flammability test chamber Patent  
[NASA-CASE-KSC-10126] c 11 N71-24985  
Autoignition test cell Patent  
[NASA-CASE-KSC-10198] c 11 N71-28629
- SPRINKLE, D. R.**  
Technique for measuring gas conversion factors  
[NASA-CASE-LAR-13220-1] c 35 N84-32786
- SPROSS, F. R.**  
Biological isolation garment Patent  
[NASA-CASE-MSC-12208-1] c 05 N71-17599
- SPUCK, W. H., III**  
Borehole geological assessment  
[NASA-CASE-NPO-14231-1] c 46 N80-10709
- SQUILLARI, W.**  
System for stabilizing torque between a balloon and gondola  
[NASA-CASE-GSC-11077-1] c 02 N73-13008
- SQUYRES, H. P.**  
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[NASA-CASE-NPO-11429-1] c 74 N77-21941
- SRIVASTAVA, S. K.**  
Means and method for calibrating a photon detector utilizing electron-photon coincidence  
[NASA-CASE-NPO-15644-1] c 35 N84-33767
- ST. CLAIR, A. K.**  
Crystalline polyimides  
[NASA-CASE-LAR-12099-1] c 27 N80-16158  
Process for preparing high temperature polyimide film laminates  
[NASA-CASE-LAR-12742-1] c 24 N81-12174  
Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206  
Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396  
Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775-1] c 27 N83-28240
- Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-28390  
Process for improving moisture resistance of epoxy resins by addition of chromium ions  
[NASA-CASE-LAR-13226-1] c 27 N84-20700  
Process for improving mechanical properties of epoxy resins by addition of cobalt ions  
[NASA-CASE-LAR-13230-1] c 24 N84-34571
- ST. CLAIR, T. L.**  
Crystalline polyimides  
[NASA-CASE-LAR-12099-1] c 27 N80-16158  
Process for preparing high temperature polyimide film laminates  
[NASA-CASE-LAR-12742-1] c 24 N81-12174  
Method for preparing addition type polyimide prepreps  
[NASA-CASE-LAR-12054-2] c 27 N81-14078  
Thermoset-thermoplastic aromatic polyamides  
[NASA-CASE-LAR-12723-1] c 27 N81-15107  
Tackifier for addition polyimides containing monoethylphthalate  
[NASA-CASE-LAR-12642-1] c 27 N81-29229  
Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206  
Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775-1] c 27 N83-28240  
Elastomer toughened polyimide adhesives  
[NASA-CASE-LAR-12775] c 27 N83-28390  
A solvent resistant, thermoplastic aromatic polyimidesulfone and process for preparing same  
[NASA-CASE-LAR-12858-2] c 27 N83-28391  
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[NASA-CASE-LAR-12858-1] c 27 N83-34041  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044  
Process for improving moisture resistance of epoxy resins by addition of chromium ions  
[NASA-CASE-LAR-13226-1] c 27 N84-20700  
Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746  
Polyphenylene ethers with imide linking groups  
[NASA-CASE-LAR-12980-1] c 27 N84-22749  
Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532  
Melt-flow-toughness modified polyimide  
[NASA-CASE-LAR-13135-1] c 27 N84-34616
- STACEY, J. M.**  
Wideband passive synthetic-aperture multichannel receiver  
[NASA-CASE-NPO-15651-1] c 32 N82-26523
- STACY, A. B., JR.**  
Mechanical fastener  
[NASA-CASE-LAR-12738-2] c 18 N84-15180
- STAHLEY, S. D.**  
Quick attach and release fluid coupling assembly Patent  
[NASA-CASE-XKS-01885] c 15 N71-10782
- STAINBACK, J. D.**  
Exposure interlock for oscilloscope cameras  
[NASA-CASE-LAR-10319-1] c 14 N73-32322
- STALEY, H. W.**  
Pulse amplitude and width detector Patent  
[NASA-CASE-XMF-06519] c 09 N71-12519  
Pulse rise time and amplitude detector Patent  
[NASA-CASE-XMF-08804] c 09 N71-24717
- STALEY, R. W.**  
Exposure system for animals Patent  
[NASA-CASE-XAC-05333] c 11 N71-22875
- STALLCOP, J. R.**  
Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156
- STALOFF, C.**  
Frequency shift keyed demodulator Patent  
[NASA-CASE-XGS-02889] c 07 N71-11282
- STAMPS, J. C.**  
Television noise reduction device  
[NASA-CASE-MSC-12607-1] c 32 N75-21485
- STANGE, W. C.**  
Cyclical bi-directional rotary actuator  
[NASA-CASE-GSC-11883-1] c 37 N77-19458  
Actuator mechanism  
[NASA-CASE-GSC-11883-2] c 37 N78-31426
- STANLEY, A. G.**  
Method for analyzing radiation sensitivity of integrated circuits  
[NASA-CASE-NPO-14350-1] c 33 N80-14332
- STARK, K. W.**  
Endless tape cartridge Patent  
[NASA-CASE-XGS-00769] c 14 N70-41647  
Endless tape transport mechanism Patent  
[NASA-CASE-XGS-01223] c 07 N71-10609  
Annular slit colloid thruster Patent  
[NASA-CASE-GSC-10709-1] c 28 N71-25213
- Micro-pound extended range thrust stand Patent  
[NASA-CASE-GSC-10710-1] c 28 N71-27094
- STARK, M. W.**  
Solid propellant liner Patent  
[NASA-CASE-XNP-09744] c 27 N71-16392
- STARKEY, D. J.**  
Torsional disconnect unit  
[NASA-CASE-NPO-10704] c 15 N72-20445
- STARNER, E. R.**  
Frequency measurement by coincidence detection with standard frequency  
[NASA-CASE-MSC-14649-1] c 33 N76-16331
- STATTTEL, R. J.**  
Memory-based frame synchronizer  
[NASA-CASE-GSC-12430-1] c 60 N82-16747  
Memory-based parallel data output controller  
[NASA-CASE-GSC-12447-2] c 60 N84-28491
- STAUGAMITS, C. L.**  
Method of coating a substrate with a rapidly solidified metal  
[NASA-CASE-GSC-12880-1] c 26 N84-20670
- STCLAIR, T. L.**  
Polyimide adhesives  
[NASA-CASE-LAR-12181-1] c 27 N78-17205
- STCLAIRE, T. L.**  
Mixed diamines for lower melting addition polyimide preparation and utilization  
[NASA-CASE-LAR-12054-1] c 27 N79-33316
- STECKRA, S.**  
Improved thermal barrier coating system  
[NASA-CASE-LEW-13324-2] c 26 N83-34014
- STECURA, S.**  
Thermal barrier coating system  
[NASA-CASE-LEW-12554-1] c 34 N78-18355  
Improved thermal barrier coating system  
[NASA-CASE-LEW-13324-1] c 26 N82-26431  
Improved thermal barrier coating system  
[NASA-CASE-LEW-14057-1] c 27 N84-33595
- STEELE, E. R.**  
Satellite aided vehicle avoidance system Patent  
[NASA-CASE-ERC-10090] c 21 N71-24948  
Satellite aided vehicle avoidance system  
[NASA-CASE-ERC-10419-1] c 03 N75-30132
- STEELE, R. K.**  
Method and apparatus for nondestructive testing of pressure vessels  
[NASA-CASE-NPO-12142-1] c 38 N76-28563
- STEENHAGEN, G.**  
Expandable support means  
[NASA-CASE-NPO-11059] c 15 N72-17454
- STEENKEN, J.**  
Relief valve  
[NASA-CASE-XMS-05894-1] c 15 N69-21924
- STEIN, B. A.**  
Hot melt adhesive attachment pad  
[NASA-CASE-LAR-12894-1] c 27 N83-34044
- STEIN, R. J.**  
Continuous detonation reaction engine Patent  
[NASA-CASE-XMF-06926] c 28 N71-22983  
Coal-shale interface detection  
[NASA-CASE-MFS-23720-3] c 43 N79-25443  
Longwall shearer tracking system  
[NASA-CASE-MFS-25717-1] c 35 N84-33768
- STEIN, S.**  
Injector-valve device Patent  
[NASA-CASE-XLE-00303] c 15 N70-36535  
Rocket engine injector Patent  
[NASA-CASE-XLE-00111] c 28 N70-38199  
Rocket engine injector Patent  
[NASA-CASE-XLE-03157] c 28 N71-24736
- STEINBERG, R.**  
Molecular beam velocity selector Patent  
[NASA-CASE-XLE-01533] c 11 N71-10777  
Method of forming metal hydride films  
[NASA-CASE-LEW-12083-1] c 37 N78-13436
- STEINMETZ, C. P.**  
Energy limiter for hydraulic actuators Patent  
[NASA-CASE-ARC-10131-1] c 15 N71-27754
- STELBEN, J. J.**  
Recorder/processor apparatus  
[NASA-CASE-GSC-11553-1] c 35 N74-15831
- STELL, R. E.**  
In situ transfer standard for ultrahigh vacuum gage calibration  
[NASA-CASE-LAR-10882-1] c 35 N74-15092
- STELLA, A. J.**  
Electrical connector pin with wiping action  
[NASA-CASE-XMF-04238] c 09 N69-39734
- STELTS, P. D.**  
Low heat leak connector for cryogenic system  
[NASA-CASE-XLE-02367-1] c 31 N79-21225
- STELZRIED, C. T.**  
Reflectometer for receiver input impedance match measurement Patent  
[NASA-CASE-XNP-10843] c 07 N71-11267



- Multi-feed cone Cassegrain antenna Patent  
[NASA-CASE-NPO-10539] c 07 N71-11285  
Matched thermistors for microwave power meters Patent  
[NASA-CASE-NPO-10348] c 10 N71-12554  
Broadband microwave waveguide window Patent  
[NASA-CASE-XNP-08880] c 09 N71-24808  
Rotary vane attenuator wherein rotor has orthogonally disposed resistive and dielectric cards  
[NASA-CASE-NPO-11418-1] c 14 N73-13420
- STENGARD, E. O.**  
Toggle mechanism for pinching metal tubes  
[NASA-CASE-GSC-12274-1] c 37 N79-28550
- STENGEL, R. F.**  
Wind velocity probing device and method Patent  
[NASA-CASE-XLA-02081] c 20 N71-16281
- STENLUND, S. J.**  
Rotating mandrel for assembly of inflatable devices Patent  
[NASA-CASE-XLA-04143] c 15 N71-17687  
Traveling sealer for contoured table Patent  
[NASA-CASE-XLA-01494] c 15 N71-24164
- STEPHANS, J. B.**  
Low cost solar energy collection system  
[NASA-CASE-NPO-13579-1] c 44 N78-17460
- STEPHENS, D. G.**  
Flexible ring slosh damping baffle Patent  
[NASA-CASE-LAR-10317-1] c 32 N71-16103  
Instrument for measuring the dynamic behavior of liquids Patent  
[NASA-CASE-XLA-05541] c 12 N71-26387  
Active vibration isolator for flexible bodies Patent  
[NASA-CASE-LAR-10106-1] c 15 N71-27169  
Ride quality meter  
[NASA-CASE-LAR-12882-1] c 35 N84-12445
- STEPHENS, D. L.**  
Automatic closed circuit television arc guidance control Patent  
[NASA-CASE-MFS-13046] c 07 N71-19433
- STEPHENS, J. B.**  
Microbalance including crystal oscillators for measuring contaminants in a gas system Patent  
[NASA-CASE-NPO-10144] c 14 N71-17701  
Space simulator Patent  
[NASA-CASE-NPO-10141] c 11 N71-24964  
Sampler of gas borne particles  
[NASA-CASE-NPO-13396-1] c 35 N76-18401  
Wind sensor  
[NASA-CASE-NPO-13462-1] c 35 N76-24524  
Cryostat system for temperatures on the order of 2 deg K or less  
[NASA-CASE-NPO-13459-1] c 31 N77-10229  
Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 31 N78-24387  
Solar pond  
[NASA-CASE-NPO-13581-2] c 44 N78-31525  
Primary reflector for solar energy collection systems  
[NASA-CASE-NPO-13579-4] c 44 N79-14529  
Primary reflector for solar energy collection systems and method of making same  
[NASA-CASE-NPO-13579-3] c 44 N79-24432  
Solar energy collection system  
[NASA-CASE-NPO-13579-2] c 44 N79-24433  
Low cost cryostat  
[NASA-CASE-NPO-14513-1] c 35 N81-14287  
Underground mineral extraction  
[NASA-CASE-NPO-14140-1] c 43 N81-26509  
Trace water sensor  
[NASA-CASE-NPO-15722-1] c 35 N83-20084  
Sphere forming method and apparatus  
[NASA-CASE-NPO-15070-1] c 31 N83-35176
- STEPHENS, J. R.**  
Process for making a high toughness-high strength iron alloy  
[NASA-CASE-LEW-12542-2] c 26 N79-22271  
High toughness-high strength iron alloy  
[NASA-CASE-LEW-12542-3] c 26 N80-32484
- STERMAN, A. P.**  
Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560  
Air modulation apparatus  
[NASA-CASE-LEW-13524-1] c 07 N84-33410
- STERN, N.**  
Reversible current control apparatus Patent  
[NASA-CASE-XLA-09371] c 10 N71-18724
- STERRETT, J. R.**  
Laser grating interferometer Patent  
[NASA-CASE-XLA-04295] c 16 N71-24170
- STETSON, A. R.**  
Silicide coatings for refractory metals Patent  
[NASA-CASE-XLE-10910] c 18 N71-29040
- STEUDL, R. M.**  
Controlled caging and uncaging mechanism  
[NASA-CASE-GSC-11063-1] c 37 N77-27400
- STEVENS, M. L.**  
Surface conforming thermal/pressure seal  
[NASA-CASE-MSC-18422-1] c 37 N82-16408
- STEVENS, M. R.**  
Portable electrophoresis apparatus using minimum electrolyte  
[NASA-CASE-NPO-13274-1] c 25 N79-10163
- STEVENSON, L. E.**  
Aircraft control system  
[NASA-CASE-ERC-10439] c 02 N73-19004
- STEWART, C. H.**  
Family of frequency to amplitude converters  
[NASA-CASE-MSC-12395] c 09 N72-25257  
Apparatus for statistical time-series analysis of electrical signals  
[NASA-CASE-MSC-12428-1] c 10 N73-25240
- STEWART, D. A.**  
Adjustable high emittance gap filler  
[NASA-CASE-ARC-11310-1] c 27 N82-24339  
High temperature glass thermal control structure and coating  
[NASA-CASE-ARC-11164-1] c 44 N83-34448
- STEWART, R. B.**  
Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds  
[NASA-CASE-LAR-10612-1] c 12 N73-28144
- STEWART, W. L.**  
Multistage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00170] c 15 N70-36412  
Multistage multiple-reentry turbine Patent  
[NASA-CASE-XLE-00085] c 28 N70-39895  
Supercharged topping rocket propellant feed system  
[NASA-CASE-XLE-02062-1] c 20 N80-14188
- STICKLE, J. W.**  
Direct lift control system Patent  
[NASA-CASE-LAR-10249-1] c 02 N71-26110
- STIFFLER, J. J.**  
Error correcting method and apparatus Patent  
[NASA-CASE-XNP-02748] c 08 N71-22749  
Encoder/decoder system for a rapidly synchronizable binary code Patent  
[NASA-CASE-NPO-10342] c 10 N71-33407
- STIGBERG, J. D.**  
Signal conditioner test set  
[NASA-CASE-KSC-10750-1] c 35 N75-12270
- STINE, H. A.**  
Electric arc apparatus Patent  
[NASA-CASE-XAC-01677] c 09 N71-20816
- STIRN, R. J.**  
High voltage, high current Schottky barrier solar cell  
[NASA-CASE-NPO-13482-1] c 44 N78-13526  
Schottky barrier solar cell  
[NASA-CASE-NPO-13689-2] c 44 N81-29525  
Method of Fabricating Schottky Barrier solar cell  
[NASA-CASE-NPO-13689-4] c 44 N82-26780
- STJOHN, R. H.**  
Walking boot assembly  
[NASA-CASE-ARC-11101-1] c 54 N78-17675
- STOAKLEY, D. M.**  
Process for improving moisture resistance of epoxy resins by addition of chromium ions  
[NASA-CASE-LAR-13226-1] c 27 N84-20700  
Process for improving mechanical properties of epoxy resins by addition of cobalt ions  
[NASA-CASE-LAR-13230-1] c 24 N84-34571
- STOCKARD, R. R.**  
Semiconductor p-n junction stress and strain sensor  
[NASA-CASE-XLA-04980] c 09 N69-27422  
Method of making semiconductor p-n junction stress and strain sensor  
[NASA-CASE-XLA-04980-2] c 14 N72-28438
- STOCKER, P. J.**  
Laser extensometer  
[NASA-CASE-MFS-19259-1] c 36 N78-14380
- STOCKS, C. D.**  
Apparatus for measuring charged particle beam  
[NASA-CASE-MFS-25641-1] c 72 N84-28575
- STOCKTON, R. J.**  
Microwave switching power divider  
[NASA-CASE-GSC-12420-1] c 33 N82-16340
- STOKES, C. S.**  
Barium release system  
[NASA-CASE-LAR-10670-1] c 06 N73-30097  
Rocket having barium release system to create ion clouds in the upper atmosphere  
[NASA-CASE-LAR-10670-2] c 15 N74-27360
- STOKES, R. C.**  
Multispectral scanner optical system  
[NASA-CASE-MSC-18255-1] c 74 N80-33210
- STOLLER, F. W.**  
Reversible motion drive system Patent  
[NASA-CASE-NPO-10173] c 15 N71-24696
- STONE, F. A.**  
Synchronous servo loop control system Patent  
[NASA-CASE-XNP-03744] c 10 N71-20448
- STONE, L. P.**  
Articulated multiple couch assembly Patent  
[NASA-CASE-MSC-11253] c 05 N71-12343
- STONE, R. W., JR.**  
G conditioning suit Patent  
[NASA-CASE-XLA-02898] c 05 N71-20268
- STONE, S. E.**  
Fluid sample collector Patent  
[NASA-CASE-XMS-06767-1] c 14 N71-20435
- STONEBURNER, J. D.**  
Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112
- STOOPS, W. E., JR.**  
Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532
- STORY, A. W.**  
System for indicating direction of intruder aircraft  
[NASA-CASE-ERC-10226-1] c 14 N73-18483  
Display system  
[NASA-CASE-ERC-10350] c 14 N73-20474
- STOTLER, C. L., JR.**  
Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-2] c 07 N78-18066  
Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-3] c 07 N79-14096
- STRAIGHT, D. M.**  
Rocket motor system Patent  
[NASA-CASE-XLE-00322] c 28 N70-38505  
Gas turbine exhaust nozzle  
[NASA-CASE-LEW-11569-1] c 07 N74-15453
- STRAND, L. D.**  
Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784  
Nitramine propellants  
[NASA-CASE-NPO-14103-1] c 28 N78-31255
- STRANGE, M. G.**  
Position sensing device employing misaligned magnetic field generating and detecting apparatus Patent  
[NASA-CASE-XGS-07514] c 23 N71-16099  
Self-regulating proportionally controlled heating apparatus and technique  
[NASA-CASE-GSC-11752-1] c 77 N75-20140
- STRASS, H. K.**  
Motion picture camera for optical pyrometry Patent  
[NASA-CASE-XLA-00062] c 14 N70-33254  
Light intensity modulator controller Patent  
[NASA-CASE-XMS-04300] c 09 N71-19479
- STREED, E. R.**  
Solar cell Patent  
[NASA-CASE-ARC-10050] c 03 N71-33409
- STREITMATTER, R. E.**  
Cerenkov radiator material and charged particle detection process  
[NASA-CASE-GSC-12805-1] c 72 N83-18423
- STRINGHAM, R. S.**  
Violet-violet process for producing flame resistant polyamides and products produced thereby  
[NASA-CASE-MSC-16074-1] c 27 N80-26446
- STROCK, W. J.**  
Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577
- STROM, T. N.**  
Spiral groove seal  
[NASA-CASE-XLE-10326-2] c 15 N72-29488  
Spiral groove seal  
[NASA-CASE-XLE-10326-4] c 37 N74-15125
- STRONG, I. J.**  
Stirring apparatus for plural test tubes Patent  
[NASA-CASE-XAC-06956] c 15 N71-21177
- STRONG, J. P., III**  
Two-dimensional radiant energy array computers and computing devices  
[NASA-CASE-GSC-11839-1] c 60 N77-14751  
Analog to digital converter for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-3] c 60 N77-32731  
Memory device for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-2] c 60 N78-10709
- STROUB, R. H.**  
Constant lift rotor for a heavier than air craft  
[NASA-CASE-ARC-11045-1] c 05 N79-17847
- STROUHAL, G.**  
Thermal insulation protection means  
[NASA-CASE-MSC-12737-1] c 24 N79-25142
- STROUP, E. R.**  
Electrochemical coulometer and method of forming same Patent  
[NASA-CASE-XGS-05434] c 03 N71-20491
- STRUDER, P. A.**  
Magnetically actuated compressor  
[NASA-CASE-GSC-12799-1] c 37 N83-20153
- STRULL, G.**  
Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612

**STRUTHOFF, G. L.**  
Dual acting slit control mechanism  
[NASA-CASE-LAR-11370-1] c 35 N80-28888

**STUART, J. L.**  
Automated fluid chemical analyzer Patent  
[NASA-CASE-XNP-09451] c 06 N71-26754

**STUART, J. W.**  
Fire resistant coating composition Patent  
[NASA-CASE-GSC-10072] c 18 N71-14014  
Diffuse reflective coating  
[NASA-CASE-GSC-11214-1] c 06 N73-13128

**STUCKEY, J. M.**  
Panelized high performance multilayer insulation Patent  
[NASA-CASE-MFS-14023] c 33 N71-25351  
Cryogenic thermal insulation Patent  
[NASA-CASE-XMF-05046] c 33 N71-28892

**STUDENICK, D. K.**  
System for stabilizing torque between a balloon and gondola  
[NASA-CASE-GSC-11077-1] c 02 N73-13008  
Fluid sampling device  
[NASA-CASE-GSC-12143-1] c 35 N77-32456

**STUDER, P. A.**  
Electronic beam switching commutator Patent  
[NASA-CASE-XGS-01451] c 09 N71-10677  
Direct current motor with stationary armature and field Patent  
[NASA-CASE-XGS-05290] c 09 N71-25999  
Helical recorder arrangement for multiple channel recording on both sides of the tape  
[NASA-CASE-GSC-10614-1] c 09 N72-11224  
Electric motive machine including magnetic bearing  
[NASA-CASE-XGS-07805] c 15 N72-33476  
Magnetic bearing  
[NASA-CASE-GSC-11079-1] c 37 N75-18574  
Magnetic bearing system  
[NASA-CASE-GSC-11978-1] c 37 N77-17484  
Three phase full wave dc motor decoder  
[NASA-CASE-GSC-11824-1] c 33 N77-26388  
Energy storage apparatus  
[NASA-CASE-GSC-12030-1] c 44 N78-24808  
Stirling cycle cryogenic cooler  
[NASA-CASE-GSC-12697-1] c 31 N82-11312  
Linear magnetic motor/generator  
[NASA-CASE-GSC-12518-1] c 33 N82-24421  
Non-contacting power transfer device  
[NASA-CASE-GSC-12595-1] c 33 N82-24422  
Stirling cycle cryogenic cooler  
[US-PATENT-4,389,849] c 44 N83-28574  
Linear magnetic bearing  
[NASA-CASE-GSC-12517-1] c 37 N83-32067  
Magnetic bearing and motor  
[NASA-CASE-GSC-12726-1] c 37 N83-34323

**STUMP, C. W.**  
Apparatus for measuring an aircraft's speed and height  
[NASA-CASE-LAR-12275-1] c 35 N79-18298  
Film advance indicator  
[NASA-CASE-LAR-12474-1] c 35 N82-26628

**STUMP, E. C., JR.**  
Hydroxy terminated perfluoro ethers Patent  
[NASA-CASE-NPO-10768] c 06 N71-27254  
Perfluoro polyether acyl fluorides  
[NASA-CASE-NPO-10765] c 06 N72-20121  
Polyurethane resins from hydroxy terminated perfluoro ethers  
[NASA-CASE-NPO-10768-2] c 06 N72-27144  
Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-2] c 06 N72-27151  
Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-1] c 06 N73-33076

**STURGIS, A. C.**  
Multiparameter vision testing apparatus  
[NASA-CASE-MSC-13601-2] c 54 N75-27759

**STURM, R. G.**  
Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420

**STURMAN, J. C.**  
Pulsed differential comparator circuit Patent  
[NASA-CASE-XLE-03804] c 10 N71-19471

**STYLES, C. M.**  
Spherical solid-propellant rocket motor Patent  
[NASA-CASE-XLA-00105] c 28 N70-33331

**SUDEY, J.**  
Low speed phaselock speed control system  
[NASA-CASE-GSC-11127-1] c 09 N75-24758

**SULLIVAN, D. B.**  
Electrical insulating layer process  
[NASA-CASE-LEW-10489-1] c 15 N72-25447

**SULLIVAN, E. M.**  
Ablation article and method  
[NASA-CASE-LAR-10439-1] c 33 N73-27798

**SULLIVAN, J. L.**  
Self-contained breathing apparatus  
[NASA-CASE-MSC-14733-1] c 54 N76-24900

**SULLIVAN, T. E.**  
Waveguide mixer  
[NASA-CASE-ERC-10179] c 07 N72-20141

**SUMIDA, J. T.**  
Miniature multichannel biotelemetry system  
[NASA-CASE-NPO-13065-1] c 52 N74-26825

**SUMMERFIELD, D. G.**  
Wind tunnel model and method  
[NASA-CASE-LAR-10812-1] c 09 N74-17955

**SUMMERS, R. H.**  
Geneva mechanism  
[NASA-CASE-NPO-13281-1] c 37 N75-13266

**SUTLIFF, J. D.**  
Wing deployment method and apparatus Patent  
[NASA-CASE-XMS-00907] c 02 N70-41630

**SWAIN, R. J.**  
Induction heating gun  
[NASA-CASE-LAR-12540-2] c 27 N82-24345  
One-step dual purpose joining technique  
[NASA-CASE-LAR-12595-1] c 33 N82-26571  
Induction heating gun  
[NASA-CASE-LAR-13181-1] c 33 N83-29591

**SWAIN, R. L.**  
Spherical solid-propellant rocket motor Patent  
[NASA-CASE-XLA-00105] c 28 N70-33331

**SWANN, R. T.**  
Sandwich panel construction Patent  
[NASA-CASE-XLA-00349] c 33 N70-37979  
Dielectric molding apparatus Patent  
[NASA-CASE-LAR-10121-1] c 15 N71-26721

**SWARTZ, P. F.**  
Micro-fluid exchange coupling apparatus  
[NASA-CASE-ARC-11114-1] c 51 N81-14605

**SWEAT, J. C.**  
Emergency escape system Patent  
[NASA-CASE-XKS-07814] c 15 N71-27067

**SWEET, G. E.**  
Compensating radiometer  
[NASA-CASE-XLA-04556] c 14 N89-27484  
Spherical measurement device  
[NASA-CASE-XLA-06883] c 14 N72-28436

**SWETTE, L. L.**  
Electrocatalyst for oxygen reduction  
[NASA-CASE-HON-10537-1] c 06 N72-10138

**SWINGLE, R. L.**  
Compact solar still Patent  
[NASA-CASE-XMS-04533] c 15 N71-23086

**SWIRSKY, B. D.**  
Method of fabricating an object with a thin wall having a precisely shaped slit  
[NASA-CASE-LAR-10409-1] c 31 N74-21059

**SWORDS, B. B.**  
Adjustable force probe  
[NASA-CASE-MFS-20780] c 14 N72-33377

**SYDNOR, R. L.**  
Ultra stable frequency distribution system  
[NASA-CASE-NPO-13836-1] c 32 N78-15323  
Maser cavity servo-tuning system  
[NASA-CASE-NPO-15890-1] c 36 N84-15536

**SYVERTSON, C. A.**  
Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087

**SZOFRAN, F. R.**  
Method of preparing radially homogeneous mercury cadmium telluride crystals  
[NASA-CASE-MFS-25786-1] c 76 N83-18533

**SZUWALSKI, B.**  
Computer circuit card puller  
[NASA-CASE-FRC-11042-1] c 60 N82-24839

## T

**TABACK, I.**  
Small conductive particle sensor  
[NASA-CASE-LAR-12552-1] c 35 N82-11431

**TADDEO, F. V.**  
Pulse generating circuit employing switch means on ends of delay line for alternately charging and discharging same Patent  
[NASA-CASE-XNP-00745] c 10 N71-28960

**TALBOT, M. W.**  
Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N89-25146  
Inverter with means for base current shaping for sweeping charge carriers from base region Patent  
[NASA-CASE-XGS-06226] c 10 N71-25950

**TALLEY, D. H.**  
Response analyzers for sensors Patent  
[NASA-CASE-MFS-11204] c 14 N71-29134

**TARPLEY, J. L.**  
Static coefficient test method and apparatus  
[NASA-CASE-GSC-11893-1] c 35 N78-31489

**TASHBAR, P. W.**  
System for depositing thin films  
[NASA-CASE-MFS-20775-1] c 31 N75-12161

**TAUB, W. M.**  
Radial module space station Patent  
[NASA-CASE-XMS-01908] c 31 N70-41373  
Space vehicle system  
[NASA-CASE-MSC-12561-1] c 18 N76-17185

**TAUSWORTHE, R. C.**  
Filter for third order phase locked loops  
[NASA-CASE-NPO-11941-1] c 10 N73-27171  
Phase conjugation method and apparatus for an active retrodirective antenna array  
[NASA-CASE-NPO-13841-1] c 32 N79-24210

**TAYLOR, A. H.**  
Pumped vortex  
[NASA-CASE-LAR-12625-1] c 02 N83-19715  
Daze fasteners  
[NASA-CASE-LAR-13009-1] c 37 N83-29706  
Aerospace vehicle  
[NASA-CASE-LAR-13155-1] c 18 N84-20628

**TAYLOR, C. J.**  
High resolution developing of photosensitive resists Patent  
[NASA-CASE-XGS-04993] c 14 N71-17574

**TAYLOR, L. L.**  
Flexible composite membrane Patent  
[NASA-CASE-XNP-08837] c 18 N71-16210

**TAYLOR, L. T.**  
Aluminum ion-containing polyimide adhesives  
[NASA-CASE-LAR-12640-1] c 27 N82-11206  
Electrically conductive palladium containing polyimide films  
[NASA-CASE-LAR-12705-1] c 25 N82-26396

**TAYLOR, L. V.**  
Plural position switch status and operativeness checker Patent  
[NASA-CASE-XLA-08799] c 10 N71-27272

**TAYLOR, M. S.**  
Fluoroether modified epoxy composites  
[NASA-CASE-ARC-11418-1] c 24 N84-11213

**TAYLOR, R. A.**  
Digital computing cardiachometer  
[NASA-CASE-MFS-20284-1] c 52 N74-12778

**TAYLOR, R. C.**  
Multi axes vibration fixtures  
[NASA-CASE-MFS-20242] c 14 N73-19421

**TAYLOR, R. E.**  
Automatic acquisition system for phase-lock loop  
[NASA-CASE-XGS-04994] c 09 N89-21543  
Polarization diversity monopulse tracking receiver Patent  
[NASA-CASE-XGS-03501] c 09 N71-20884  
Electromagnetic polarization systems and methods Patent  
[NASA-CASE-GSC-10021-1] c 09 N71-24595  
Method and automated apparatus for detecting coliform organisms  
[NASA-CASE-MSC-16777-1] c 51 N80-27067  
Navigation system and method  
[NASA-CASE-GSC-12508-1] c 04 N84-22546

**TAYLOR, T. I.**  
Metabolic rate meter and method  
[NASA-CASE-MSC-12239-1] c 52 N79-21750

**TCHERNEV, D. I.**  
Variable frequency nuclear magnetic resonance spectrometer Patent  
[NASA-CASE-XNP-09830] c 14 N71-26266

**TE POEL, H. E.**  
Television signal scan rate conversion system Patent  
[NASA-CASE-XMS-07168] c 07 N71-11300

**TEGNELIA, C. R.**  
Digital second-order phase-locked loop  
[NASA-CASE-NPO-11905-1] c 33 N74-12887

**TEITELBAUM, S.**  
Frequency shift keyed demodulator Patent  
[NASA-CASE-XGS-02889] c 07 N71-11282

**TELFER, T. A.**  
Method of determining bond quality of power transistors attached to substrates  
[NASA-CASE-MFS-21931-1] c 37 N75-26372

**TEMPLE, G.**  
Apparatus and method for tracking the fundamental frequency of an analog input signal  
[NASA-CASE-ARC-11367-1] c 33 N83-21238

**TEMPLE, H. E.**  
Means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains  
[NASA-CASE-NPO-14298-1] c 76 N80-32244  
Apparatus for use in the production of ribbon-shaped crystals from a silicon melt  
[NASA-CASE-NPO-14297-1] c 33 N81-19389

**TENER, W. M.**  
Cryogenic liquid sensor  
[NASA-CASE-NPO-10619-1] c 35 N77-21393

**TENG, R. N.**  
Collapsible pistons  
[NASA-CASE-MSC-13789-1] c 11 N73-32152

- TENNEY, J. B., JR.**  
Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744
- TENOSO, H. J.**  
Water system virus detection  
[NASA-CASE-MSC-16098-1] c 51 N79-10693
- TEPPER, E. H.**  
Regenerable device for scrubbing breathable air of CO<sub>2</sub> and moisture without special heat exchanger equipment  
[NASA-CASE-MSC-14771-1] c 54 N77-32722
- TERP, L. S.**  
Gas compression apparatus  
[NASA-CASE-MSC-14757-1] c 35 N78-10428
- TERRAY, A.**  
Method of making an apertured casting  
[NASA-CASE-LEW-11169-1] c 37 N76-23570
- TERSELIC, R. A.**  
Split welding chamber Patent  
[NASA-CASE-LEW-11531] c 15 N71-14932
- TERVET, F. W.**  
Mixed polyvalent-monovalent metal coating for carbon-graphite fibers  
[NASA-CASE-NPO-14987-1] c 24 N83-33950
- TESINSKY, J. S.**  
Flexible pile thermal barrier insulator  
[NASA-CASE-MSC-19568-1] c 34 N78-25350
- TETSUKA, G. M.**  
Single or joint amplitude distribution analyzer Patent  
[NASA-CASE-XNP-01383] c 09 N71-10659
- THAKOOR, A.**  
Corrosion resistant coating  
[NASA-CASE-NPO-15928-1] c 26 N84-12289
- THALER, S.**  
Voltage regulator Patent  
[NASA-CASE-ERC-10113] c 09 N71-27053  
Current dependent filter inductance  
[NASA-CASE-ERC-10139] c 09 N72-17154
- THALLER, L. H.**  
Combined electrolysis device and fuel cell and method of operation Patent  
[NASA-CASE-XLE-01845] c 03 N71-20904  
Electrically rechargeable REDOX flow cell  
[NASA-CASE-LEW-12220-1] c 44 N77-14581  
Electrochemical cell for rebalancing REDOX flow system  
[NASA-CASE-LEW-13150-1] c 44 N79-26474
- THATCHER, C. S.**  
Precision heat forming of tetrafluoroethylene tubing  
[NASA-CASE-MSC-18430-1] c 37 N82-24491
- THEAKSTON, H. A.**  
Floating nut retention system  
[NASA-CASE-MSC-18938-1] c 37 N80-23653
- THEISS, M.**  
Gas levitator having fixed levitation node for containerless processing  
[NASA-CASE-MFS-25509-1] c 35 N83-24828
- THIBODAUX, J. G., JR.**  
Spherical solid-propellant rocket motor Patent  
[NASA-CASE-XLA-00105] c 28 N70-33331  
Mandrel for shaping solid propellant rocket fuel into a motor casing Patent  
[NASA-CASE-XLA-00304] c 27 N70-34783  
Method of making a solid propellant rocket motor Patent  
[NASA-CASE-XLA-04126] c 28 N71-26779  
Solid propellant rocket motor and method of making same  
[NASA-CASE-XLA-1349] c 20 N77-17143
- THIEL, A. M.**  
Aligning and positioning device Patent  
[NASA-CASE-XMS-04178] c 15 N71-22798
- THIELE, C.**  
Space simulator Patent  
[NASA-CASE-XNP-00459] c 11 N70-38675
- THIELE, C. L.**  
Thermal energy transformer  
[NASA-CASE-NPO-14058-1] c 44 N79-18443
- THOLE, J. M.**  
Inflation system for balloon type satellites Patent  
[NASA-CASE-XGS-03351] c 31 N71-16081
- THOM, K.**  
Magnetically controlled plasma accelerator Patent  
[NASA-CASE-XLA-00327] c 25 N71-29184  
Non-equilibrium radiation nuclear reactor  
[NASA-CASE-HQN-10841-1] c 73 N78-19920
- THOMAS, D. F., JR.**  
Jet shoes  
[NASA-CASE-XLA-08491] c 05 N69-21380  
One hand backpack harness  
[NASA-CASE-LAR-10102-1] c 05 N72-23085  
Kinesthetic control simulator  
[NASA-CASE-LAR-10276-1] c 09 N75-15682  
Fluid velocity measuring device  
[NASA-CASE-LAR-11729-1] c 34 N79-12359
- THOMAS, H. N.**  
Electronic motor control system Patent  
[NASA-CASE-XMF-01129] c 09 N70-38712
- THOMAS, N. E.**  
Optical communications system Patent  
[NASA-CASE-XLA-01090] c 07 N71-12389  
Optical communications system Patent  
[NASA-CASE-XLA-01090] c 16 N71-28963
- THOMAS, N. L.**  
Optical alignment device  
[NASA-CASE-ARC-10932-1] c 74 N76-22993
- THOMAS, R. D.**  
Thermocouple tape  
[NASA-CASE-LEW-11072-1] c 14 N73-24472  
Thermocouple tape  
[NASA-CASE-LEW-11072-2] c 35 N76-15434  
Multi-cell battery protection system  
[NASA-CASE-LEW-12039-1] c 44 N78-14625
- THOMAS, R. R.**  
Method and apparatus for eliminating luminol interference material  
[NASA-CASE-MSC-16260-1] c 51 N80-16714  
Rapid, quantitative determination of bacteria in water  
[NASA-CASE-GSC-12158-1] c 51 N83-27569
- THOMASON, H. E.**  
Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688  
Azimuth laying system Patent  
[NASA-CASE-XMF-01669] c 21 N71-23289
- THOMPSON, G. D., JR.**  
Cascaded complementary pair broadband transistor amplifiers Patent  
[NASA-CASE-NPO-10003] c 10 N71-26415
- THOMPSON, J. R., JR.**  
Inflatable transpiration cooled nozzle  
[NASA-CASE-MFS-20619] c 28 N72-11708
- THOMPSON, R. B.**  
Length mode piezoelectric ultrasonic transducer for inspection of solid objects  
[NASA-CASE-MSC-19672-1] c 38 N78-14398
- THOMPSON, R. E.**  
On-film optical recording of camera lens settings  
[NASA-CASE-MSC-12363-1] c 14 N73-26431
- THOMPSON, S. W.**  
Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229
- THOMPSON, W. W.**  
Inhibited solid propellant composition containing beryllium hydride  
[NASA-CASE-NPO-10866-1] c 28 N79-14228
- THOMSON, A. R.**  
Pulsed energy power system Patent  
[NASA-CASE-MSC-13112] c 03 N71-11057
- THOMPSON, J. A. L.**  
Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753
- THORNHILL, J. W.**  
Process and apparatus for growing a crystal ribbon  
[NASA-CASE-NPO-15629-1] c 76 N84-35113
- THORNTON, G. E.**  
Hole cutter  
[NASA-CASE-MFS-22649-1] c 37 N75-25186
- THORNTON, W. E.**  
Kinesimetric method and apparatus  
[NASA-CASE-MSC-18929-1] c 39 N83-20280  
Method and apparatus for simulating gravitational forces on a living organism  
[NASA-CASE-MSC-20202-1] c 54 N84-16803
- THORNWALL, J. C.**  
Regulated dc to dc converter  
[NASA-CASE-XGS-03429] c 03 N69-21330  
Pulse-type magnetic core memory element circuit with blocking oscillator feedback Patent  
[NASA-CASE-XGS-03303] c 08 N71-18595  
Stepping motor control circuit Patent  
[NASA-CASE-GSC-10366-1] c 10 N71-18772
- THORPE, R. S.**  
Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125
- THYS, P. C.**  
Droplet monitoring probe  
[NASA-CASE-NPO-10985] c 14 N73-20478
- TIBBITTS, W. C.**  
Apparatus and method for protecting a photographic device Patent  
[NASA-CASE-NPO-10174] c 14 N71-18465
- TICKNER, E. G.**  
Liquid cooled brassiere and method of diagnosing malignant tumors therewith  
[NASA-CASE-ARC-11007-1] c 52 N77-14736
- TIEFERMANN, M. W.**  
Optical torque meter Patent  
[NASA-CASE-XLE-00503] c 14 N70-34818
- TILLER, N. G.**  
Device for measuring bearing preload  
[NASA-CASE-MFS-20434] c 11 N72-25288
- TIMM, J. D.**  
Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137
- TIMOR, U.**  
Multichannel telemetry system  
[NASA-CASE-NPO-11572] c 07 N73-16121  
Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier  
[NASA-CASE-NPO-11593-1] c 07 N73-28012
- TINLING, B. E.**  
Stabilization of gravity oriented satellites Patent  
[NASA-CASE-XAC-01591] c 31 N71-17729
- TISCHLER, R. F.**  
Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases  
[NASA-CASE-XLE-00690] c 25 N69-39884
- TISDALE, H. F., SR.**  
Velocity vector control system augmented with direct lift control  
[NASA-CASE-LAR-12268-1] c 08 N81-24106
- TITLE, A. M.**  
Partial polarizer filter  
[NASA-CASE-GSC-12225-1] c 74 N79-14891
- TITUS, L. E.**  
Wide power range microwave feedback controller  
[NASA-CASE-GSC-12146-1] c 33 N78-32340
- TOBIAS, R. A.**  
Thermostatic actuator  
[NASA-CASE-NPO-10637] c 15 N72-12409  
Thermal motor  
[NASA-CASE-NPO-11283] c 09 N72-25260
- TOCK, R. W.**  
Mixture separation cell Patent  
[NASA-CASE-XMS-02952] c 18 N71-20742
- TODD, H. H.**  
Method of producing refractory bodies having controlled porosity Patent  
[NASA-CASE-LEW-10393-1] c 17 N71-15468  
Shock tube powder dispersing apparatus Patent  
[NASA-CASE-XLE-04946] c 17 N71-24911
- TOFT, A. R.**  
Star tracking reticles and process for the production thereof  
[NASA-CASE-GSC-11188-2] c 21 N73-19630  
Star tracking reticles  
[NASA-CASE-GSC-11188-1] c 14 N73-32320  
Formation of star tracking reticles  
[NASA-CASE-GSC-11188-3] c 74 N74-20008
- TOLL, T. A.**  
Variable sweep wing aircraft Patent  
[NASA-CASE-XLA-00221] c 02 N70-33266
- TOLSON, B. A.**  
Cable stabilizer for open shaft cable operated elevators  
[NASA-CASE-KSC-10513] c 15 N72-25453
- TOM, H. Y.**  
Ionene membrane separator  
[NASA-CASE-NPO-11091] c 18 N72-22567
- TOMBRELLO, T. A.**  
Method and means for helium/hydrogen ratio measurement by alpha scattering  
[NASA-CASE-NPO-14079-1] c 25 N80-20334
- TOMLINSON, H. M.**  
Fuselage structure using advanced technology fiber reinforced composites  
[NASA-CASE-LAR-11688-1] c 24 N82-26384
- TOMLINSON, L. E.**  
Temperature sensitive flow regulator Patent  
[NASA-CASE-MFS-14259] c 15 N71-19213
- TONGIER, M., JR.**  
Absolute focus lock for microscopes  
[NASA-CASE-LAR-10184] c 14 N72-22445
- TOOLE, P. C.**  
High speed direct binary-to-binary coded decimal converter  
[NASA-CASE-KSC-10326] c 08 N72-21197  
High speed direct binary to binary coded decimal converter and scaler  
[NASA-CASE-KSC-10595] c 08 N73-12176  
Compact bi-phase pulse coded modulation decoder  
[NASA-CASE-KSC-10834-1] c 33 N76-14371  
Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310  
Automatic level control circuit  
[NASA-CASE-KSC-11170-1] c 33 N83-36356
- TOOTS, J.**  
Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348

## TOPITS, A., JR.

- High impact pressure regulator Patent  
[NASA-CASE-NPO-10175] c 14 N71-18825
- Apparatus for forming drive belts  
[NASA-CASE-NPO-13205-1] c 31 N74-32917
- TORBETT, M. A.**  
Liquid-immersible electrostatic ultrasonic transducer  
[NASA-CASE-LAR-12465-1] c 33 N82-26572
- TORNEY, F. L., JR.**  
Ultrahigh vacuum gauge having two collector electrodes  
[NASA-CASE-LAR-02743] c 14 N73-32324
- TOTH, L. R.**  
Belleville spring assembly with elastic guides  
[NASA-CASE-XNP-09452] c 15 N69-27504
- TOWNES, C. H.**  
Optical frequency waveguide Patent  
[NASA-CASE-HQN-10541-1] c 07 N71-26291
- Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135
- Optical frequency waveguide and transmission system Patent  
[NASA-CASE-HQN-10541-4] c 16 N71-27183
- Optical frequency waveguide and transmission system  
[NASA-CASE-HQN-10541-3] c 23 N72-23695
- TOWNSEND, M. R.**  
Digital telemetry system Patent  
[NASA-CASE-XGS-01812] c 07 N71-23001
- TOY, M. S.**  
New polymers of perfluorobutadiene and method of manufacture Patent application  
[NASA-CASE-NPO-10863] c 06 N70-11251
- Method of polymerizing perfluorobutadiene Patent application  
[NASA-CASE-NPO-10447] c 06 N70-11252
- Reaction of fluorine with polyperfluoropolyenes  
[NASA-CASE-NPO-10862] c 06 N72-22107
- Polymers of perfluorobutadiene and method of manufacture  
[NASA-CASE-NPO-10863-2] c 06 N72-25152
- Utilization of oxygen difluoride for syntheses of fluoropolymers  
[NASA-CASE-NPO-12061-1] c 27 N76-18228
- Violet process for producing flame resistant polyamides and products produced thereby  
[NASA-CASE-MSC-16074-1] c 27 N80-26446
- TRADER, A. G.**  
Subgravity simulator Patent  
[NASA-CASE-XMS-04798] c 11 N71-21474
- Pneumatic amplifier Patent  
[NASA-CASE-MSC-12121-1] c 15 N71-27147
- TRAVIS, E. W.**  
Satellite appendage tie down cord Patent  
[NASA-CASE-XGS-02554] c 31 N71-21064
- TRELEASE, R. B.**  
Hydraulic casting of liquid polymers Patent  
[NASA-CASE-XNP-07659] c 06 N71-22975
- TRENT, R. C.**  
Method of manufacturing semiconductor devices using refractory dielectrics  
[NASA-CASE-XER-08476-1] c 26 N72-17820
- TRENT, R. L.**  
Location identification system  
[NASA-CASE-ERC-10324] c 07 N72-25173
- TRIMBLE, D. W.**  
Combinational logic for generating gate drive signals for phase control rectifiers  
[NASA-CASE-MFS-25208-1] c 33 N83-10345
- TRIMPI, R. L.**  
Combustion detector  
[NASA-CASE-LAR-10739-1] c 14 N73-16484
- TRINH, E. H.**  
System for monitoring physical characteristics of fluids  
[NASA-CASE-NPO-15400-1] c 34 N83-31993
- Acoustic system for material transport  
[NASA-CASE-NPO-15453-1] c 71 N83-32515
- Acoustic bubble removal method  
[NASA-CASE-NPO-15334-1] c 71 N83-35781
- TRIOLO, J. J.**  
Apparatus for controlling the temperature of balloon-borne equipment  
[NASA-CASE-GSC-11620-1] c 34 N74-23039
- TRIPP, C. H.**  
Booster tank system Patent  
[NASA-CASE-MSC-12390] c 27 N71-29155
- TRISCHLER, F. D.**  
Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099
- Polyurethanes from fluoroalkyl propylene glycol polyethers  
[NASA-CASE-MFS-10506] c 06 N73-30100
- Fluorohydroxy ethers  
[NASA-CASE-MFS-10507] c 06 N73-30101
- Highly fluorinated polymers  
[NASA-CASE-MFS-11492] c 06 N73-30102

- Fluorine containing polyurethane  
[NASA-CASE-MFS-10509] c 06 N73-30103
- Fluorine-containing polyformals  
[NASA-CASE-XMF-06900-1] c 27 N79-21191
- TROEGER, R. E.**  
Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560
- TROMKA, J. L.**  
Method and apparatus for mapping the distribution of chemical elements in an extended medium  
[NASA-CASE-GSC-12808-1] c 45 N83-20446
- TROST, R. F.**  
Data compression system with a minimum time delay unit Patent  
[NASA-CASE-XNP-08832] c 08 N71-12506
- TROUT, O. F., JR.**  
Heat protection apparatus Patent  
[NASA-CASE-XLA-00892] c 33 N71-17897
- TROWBRIDGE, D. L.**  
Independent gain and bandwidth control of a traveling wave maser  
[NASA-CASE-NPO-13801-1] c 36 N78-18410
- Swept group delay measurement  
[NASA-CASE-NPO-13809-1] c 33 N78-25319
- TRUBERT, M. R.**  
Collapsible structure for an antenna reflector  
[NASA-CASE-NPO-11751] c 07 N73-24176
- TRUSCH, R. B.**  
Condensate removal device for heat exchanger  
[NASA-CASE-MSC-14143-1] c 77 N75-20139
- TRUSSELL, D. H.**  
High intensity heat and light unit Patent  
[NASA-CASE-XLA-00141] c 09 N70-33312
- TSCHIRCH, R. P.**  
Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-1] c 27 N82-16238
- Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSC-18382-2] c 27 N84-14324
- Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-1] c 54 N84-28484
- TSCHUNKO, H. F. A.**  
Optical mirror apparatus Patent  
[NASA-CASE-ERC-10001] c 23 N71-24868
- Electromechanical control actuator system Patent  
[NASA-CASE-ERC-10022] c 15 N71-26635
- Optical system support apparatus  
[NASA-CASE-XER-07898-2] c 23 N72-22673
- TSUDA, G. I.**  
High efficiency multifrequency feed  
[NASA-CASE-GSC-11909] c 32 N74-20863
- TSUO, Y. H.**  
Photocapacitive image converter  
[NASA-CASE-LAR-12513-1] c 44 N82-32841
- TSUTSUMI, K.**  
Hydraulic drive mechanism Patent  
[NASA-CASE-XMS-03252] c 15 N71-10658
- TUBBS, E. F.**  
Ranging system  
[NASA-CASE-NPO-15865-1] c 74 N83-12991
- TUBBS, H. E.**  
Continuous detonation reaction engine Patent  
[NASA-CASE-MSC-06926] c 26 N71-22983
- TUCKER, C. E.**  
Mobile sampler for use in acquiring samples of terrestrial atmospheric gases  
[NASA-CASE-NPO-15220-1] c 45 N83-25217
- TUCKER, E. M.**  
Coupling device  
[NASA-CASE-XMS-07846-1] c 09 N69-21927
- Space suit heat exchanger Patent  
[NASA-CASE-XMS-09571] c 05 N71-19439
- Extravehicular tunnel suit system Patent  
[NASA-CASE-MSC-12243-1] c 05 N71-24728
- TUGGLE, R. H., JR.**  
Apparatus for assembling space structure  
[NASA-CASE-MFS-23579-1] c 18 N79-11108
- TULEY, E. M.**  
Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560
- TUMULTY, W. T., JR.**  
Mimicry self-deploying boom mechanism  
[NASA-CASE-GSC-10568-1] c 15 N72-18477
- TUNG, Y.**  
Liquid waste feed system  
[NASA-CASE-LAR-10385-1] c 05 N72-27102
- TURK, R. L.**  
Fabrication of controlled-porosity metals Patent  
[NASA-CASE-XNP-04339] c 17 N71-29137
- TURLY, A. P.**  
Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403

## TURNAGE, J. E.

- Flame detector operable in presence of proton radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410
- TURNER, G. B.**  
Driver for solar cell I-V characteristic plots  
[NASA-CASE-NPO-14096-1] c 44 N80-18551
- TURNER, J. W.**  
Measurement system  
[NASA-CASE-MFS-20658-1] c 14 N73-30386
- TURNER, R. C.**  
Thermocouple assembly Patent  
[NASA-CASE-XNP-01859] c 14 N71-23039
- TURNER, R. E.**  
Anemometer with braking mechanism Patent  
[NASA-CASE-XMF-05224] c 14 N71-23726
- Maxometers (peak wind speed anemometers)  
[NASA-CASE-MFS-20916] c 14 N73-25480
- TURNER, T. M.**  
A dual differential interferometer  
[NASA-CASE-LAR-12968-1] c 71 N83-12969
- TURNER, T. R.**  
Double hinged flap Patent  
[NASA-CASE-XLA-01290] c 02 N70-42016
- TUTTLE, S. A.**  
Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794
- TVEITAN, W.**  
Data compression system  
[NASA-CASE-XNP-09785] c 08 N69-21928
- TWARD, E.**  
Cycling Joule Thomson refrigerator  
[NASA-CASE-NPO-15251-1] c 31 N83-31897
- TYAGI, R. C.**  
High field CdS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088
- Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements  
[NASA-CASE-LAR-11144-1] c 25 N75-26043
- TYCZ, M.**  
Apparatus for simulating optical transmission links  
[NASA-CASE-GSC-11877-1] c 74 N76-18913
- TYLER, A. L.**  
Helical recorder arrangement for multiple channel recording on both sides of the tape  
[NASA-CASE-GSC-10614-1] c 09 N72-11224
- System for stabilizing torque between a balloon and gondola  
[NASA-CASE-GSC-11077-1] c 02 N73-13008
- TYREE, V. C.**  
Real-time multiple-look synthetic aperture radar processor for spacecraft applications  
[NASA-CASE-NPO-14054-1] c 32 N82-12297

## U

## UBER, P. W.

- Tape recorder Patent  
[NASA-CASE-XGS-08259] c 14 N71-23698
- ULRICH, B. R.**  
Aircraft-mounted crash-activated transmitter device  
[NASA-CASE-MFS-16608-3] c 03 N76-32140
- ULRICH, D. R.**  
Screened circuit capacitors  
[NASA-CASE-LAR-10294-1] c 26 N72-28762
- ULRICH, G. W.**  
Latching device  
[NASA-CASE-MFS-21806-1] c 37 N75-19685
- UNDERWOOD, J. H.**  
Collimator of multiple plates with axially aligned identical random arrays of apertures  
[NASA-CASE-MFS-20548-2] c 14 N73-30389
- Multiplate focusing collimator  
[NASA-CASE-MFS-20932-1] c 35 N75-19616
- X-ray imaging mirror system and method of producing the same  
[NASA-CASE-NPO-15828-1] c 74 N83-30222
- UPOIKE, O. L.**  
Apparatus for measuring a sorbate dispersed in a fluid stream  
[NASA-CASE-ARC-10896-1] c 35 N78-19465
- UPTON, D. T.**  
Scanner  
[NASA-CASE-GSC-12032-2] c 43 N82-13465
- URBAN, E. W.**  
Direct current transformer  
[NASA-CASE-MFS-23859-1] c 33 N79-17133
- URSERV, B. C.**  
Collapsible nozzle extension for rocket engines Patent  
[NASA-CASE-MFS-11497] c 28 N71-16224

## V

- VADAKAN, V. V.**  
Multicomputer communication system  
[NASA-CASE-NPO-15433-1] c 62 N83-20634
- VALENTIJN, H. P.**  
Roll-up solar array Patent  
[NASA-CASE-NPO-10188] c 03 N71-20273  
Deployable solar cell array  
[NASA-CASE-NPO-10883] c 31 N72-22874
- VALINSKY, J. P.**  
Device for monitoring a change in mass in varying gravimetric environments  
[NASA-CASE-MFS-21556-1] c 35 N74-26945
- VALLOTTON, W. C.**  
Anthropomorphic master/slave manipulator system  
[NASA-CASE-ARC-10756-1] c 54 N77-32721  
Mechanical energy storage device for hip disarticulation  
[NASA-CASE-ARC-10916-1] c 52 N78-10686
- VANALSTYNE, E. M.**  
Spacecraft Patent  
[NASA-CASE-MSC-13047-1] c 31 N71-25434
- VANARNAM, D. E.**  
Pneumatic system for controlling and actuating pneumatic cyclic devices  
[NASA-CASE-XMS-04843] c 03 N69-21469
- VANATTA, L. C.**  
Circularly polarized antenna  
[NASA-CASE-ERC-10214] c 09 N72-31235
- VANAUKEN, R.**  
Reinforced polyquinoxaline gasket and method of preparing the same  
[NASA-CASE-MFS-21364-1] c 37 N74-18126
- VANDERHOFF, J. W.**  
Process for preparation of large-particle-size monodisperse latexes  
[NASA-CASE-MFS-25000-1] c 25 N81-19242
- VANDERJET, E. K.**  
Magnetic power switch Patent  
[NASA-CASE-NPO-10242] c 09 N71-24803
- VANGO, S. P.**  
Liquid junction and method of fabricating the same Patent Application  
[NASA-CASE-NPO-10682] c 15 N70-34699  
Flexible composite membrane Patent  
[NASA-CASE-NPO-08837] c 18 N71-16210
- VANNUCCI, R. D.**  
Curing agent for polyepoxides and epoxy resins and composites cured therewith  
[NASA-CASE-LEW-13226-1] c 27 N81-17260
- VANO, A. E.**  
Quick attach mechanism Patent  
[NASA-CASE-KFR-05421] c 15 N71-22994
- VANORNUM, D. G.**  
Electric arc light source having undercut recessed anode  
[NASA-CASE-ARC-10266-1] c 33 N75-29318
- VANSCHOIACK, M. M. E.**  
High impedance measuring apparatus Patent  
[NASA-CASE-XMS-08589-1] c 09 N71-20569
- VANTUYLRUSCH, W.**  
Millimeter wave radiometer for radio astronomy Patent  
[NASA-CASE-XNP-09832] c 30 N71-23723
- VARGO, D. J.**  
Ophthalmic method and apparatus  
[NASA-CASE-LEW-11669-1] c 05 N73-27062
- VARMA, I. K.**  
Phosphorus-containing bisimide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272  
Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-1] c 27 N83-31854  
Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322  
Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-3] c 27 N84-22745
- VARS, G.**  
Seismic vibration source  
[NASA-CASE-NPO-14112-1] c 48 N79-22679
- VARY, A.**  
Triode thermionic energy converter  
[NASA-CASE-XLE-01015] c 03 N69-39888  
High temperature heat source Patent  
[NASA-CASE-XLE-00490] c 33 N70-34545  
Radiant heater having formed filaments Patent  
[NASA-CASE-XLE-00387] c 33 N70-34812  
Inductive liquid level detection system Patent  
[NASA-CASE-XLE-01606] c 14 N71-10500  
Capillary radiator Patent  
[NASA-CASE-XLE-03307] c 33 N71-14035  
Thermionic converter with current augmented by self induced magnetic field Patent  
[NASA-CASE-XLE-01903] c 22 N71-23599  
Cyclic switch Patent  
[NASA-CASE-LEW-10155-1] c 09 N71-29035
- VASILAKOS, N.**  
Coal desulfurization by aqueous chlorination  
[NASA-CASE-NPO-14902-1] c 25 N82-29371
- VAUGHAN, G. R.**  
Phase locked phase modulator including a voltage controlled oscillator Patent  
[NASA-CASE-XNP-05382] c 10 N71-23544
- VAUGHAN, O. H.**  
Emergency lunar communications system  
[NASA-CASE-MFS-21042] c 07 N72-25171
- VAUGHAN, R. L.**  
Electrolytic cell structure  
[NASA-CASE-LAR-11042-1] c 33 N75-27252
- VAUGHAN, R. W.**  
Capillary flow weld-bonding  
[NASA-CASE-LAR-11726-1] c 37 N76-27568  
Weld-bonded titanium structures  
[NASA-CASE-LAR-11549-1] c 37 N77-11397
- VAUSE, R.**  
Acoustically swept rotor  
[NASA-CASE-ARC-11106-1] c 05 N80-14107
- VEHRENCAMP, J. E.**  
Electromagnetic radiation energy arrangement  
[NASA-CASE-WOO-00428-1] c 32 N79-19186
- VEIKINS, O.**  
Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730
- VEILLETTE, L. J.**  
Angular position and velocity sensing apparatus Patent  
[NASA-CASE-XGS-05680] c 14 N71-17585  
Bidirectional step torque filter with zero backlash characteristic Patent  
[NASA-CASE-XGS-04227] c 15 N71-21744  
Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
[NASA-CASE-XGS-04224] c 10 N71-26418  
Synchronous dc direct drive system Patent  
[NASA-CASE-GSC-10065-1] c 10 N71-27138  
Axially and radially controllable magnetic bearing  
[NASA-CASE-GSC-11551-1] c 37 N76-18459
- VELLEND, H.**  
Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794  
Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12046-1] c 52 N78-14750
- VERMILLION, C. H.**  
Facsimile video remodulation network  
[NASA-CASE-GSC-10185-1] c 07 N72-12081
- VERMILLION, C. M.**  
Resistance soldering apparatus  
[NASA-CASE-GSC-10913] c 15 N72-22491
- VERNIKOS, J.**  
Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-2] c 52 N81-14613
- VESSOT, R. F. C.**  
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency  
[NASA-CASE-HQN-10654-1] c 18 N73-13489  
Tunable cavity resonator with ramp shaped supports  
[NASA-CASE-HQN-10790-1] c 36 N74-11313
- VICK, A. R.**  
Method of obtaining permanent record of surface flow phenomena Patent  
[NASA-CASE-XLA-01353] c 14 N70-41366
- VICK, H. A.**  
Blood pressure measuring system for separating and separately recording dc signal and an ac signal Patent  
[NASA-CASE-XMS-06061] c 05 N71-23317
- VICKERS, J. M.**  
Portable electrophoresis apparatus using minimum electrolyte  
[NASA-CASE-NPO-13274-1] c 25 N79-10183
- VICKERS, J. M. F.**  
Intermittent type silica gel adsorption refrigerator Patent  
[NASA-CASE-XNP-00920] c 15 N71-15906
- VIENMANN, W.**  
Fluorescent radiation converter  
[NASA-CASE-GSC-12528-1] c 74 N81-24900
- VIKINSALO, S. J.**  
Helmet latching and attaching ring  
[NASA-CASE-XMS-04670] c 54 N78-17678
- VILLARREAL, S.**  
Method and apparatus for receiving and tracking phase modulated signals  
[NASA-CASE-MSC-16170-2] c 32 N84-27952
- VILNROTTER, V. A.**  
Synchronization tracking in pulse position modulation receiver  
[NASA-CASE-NPO-16256-1] c 32 N84-32620
- VINAL, A. W.**  
Redundant memory organization Patent  
[NASA-CASE-GSC-10564] c 10 N71-29135
- VINCENT, J. S.**  
Method of forming thin window drifted silicon charged particle detector Patent  
[NASA-CASE-XLE-00808] c 24 N71-10560
- VINE, J.**  
Magnifying image intensifier  
[NASA-CASE-GSC-12010-1] c 74 N78-18905
- VIVIAN, H. C.**  
Photosensitive device to detect bearing deviation Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089  
Space vehicle attitude control Patent  
[NASA-CASE-XNP-00465] c 21 N70-35395  
Remodulator filter Patent  
[NASA-CASE-NPO-10198] c 09 N71-24806
- VODICKA, V. W.**  
Magnetic recording head and method of making same Patent  
[NASA-CASE-GSC-10097-1] c 08 N71-27210
- VOECKS, G. E.**  
Combustion engine system  
[NASA-CASE-NPO-14565-2] c 25 N83-19826
- VOGEELEY, A. W.**  
Cable arrangement for rigid tethering Patent  
[NASA-CASE-XLA-02332] c 32 N71-17609  
Combined optical attitude and altitude indicating instrument Patent  
[NASA-CASE-XLA-01907] c 14 N71-23268
- VOGL, O.**  
Stabilized unsaturated polyesters  
[NASA-CASE-NPO-16103-1] c 27 N84-32530
- VOLK, G. G.**  
Portable device for use in starting air-start-units for aircraft and having cable lead testing capability  
[NASA-CASE-FRC-10113-1] c 33 N80-26599
- VOLKOFF, J. J.**  
Electro-optical scanning apparatus Patent Application  
[NASA-CASE-NPO-11106] c 14 N70-34697
- VOLPE, F. A.**  
Sun tracker with rotatable plane-parallel plate and two photocells Patent  
[NASA-CASE-XGS-01159] c 21 N71-10678  
Attitude control system Patent  
[NASA-CASE-XGS-04393] c 21 N71-14159  
Star scanner  
[NASA-CASE-GSC-11569-1] c 59 N74-30886
- VONPRAGENAU, G. L.**  
Support apparatus for dynamic testing Patent  
[NASA-CASE-XMF-01772] c 11 N70-41677  
Hydraulic support for dynamic testing Patent  
[NASA-CASE-XMF-03248] c 11 N71-10604  
Space vehicle  
[NASA-CASE-MFS-22734-1] c 18 N75-19329  
Translatory shock absorber for attitude sensors  
[NASA-CASE-MFS-22905-1] c 18 N76-22284  
Attitude control system  
[NASA-CASE-MFS-22787-1] c 15 N77-10113  
Damping seal for turbomachinery  
[NASA-CASE-MFS-25842-1] c 37 N83-26080  
Space Shuttle with rail system and aft thrust structure securing solid rocket boosters to external tank  
[NASA-CASE-MFS-25853-1] c 16 N84-27784
- VONROOS, O. H.**  
Method and apparatus for measuring minority carrier lifetimes and bulk diffusion length in P-N junction solar cells  
[NASA-CASE-NPO-14100-1] c 44 N78-12541
- VONTIENHAUSEN, G. F.**  
Energy absorbing device Patent  
[NASA-CASE-XMF-10040] c 15 N71-22877  
Beam connector apparatus and assembly  
[NASA-CASE-MFS-25134-1] c 31 N83-31895
- VORHABEN, K. H.**  
System for producing chroma signals  
[NASA-CASE-MSC-14683-1] c 74 N77-18893
- VORKINK, H. G.**  
Variable frequency nuclear magnetic resonance spectrometer Patent  
[NASA-CASE-XNP-09830] c 14 N71-26266
- VORREITER, J. W.**  
Cryogenic container compound suspension strap  
[NASA-CASE-ARC-11157-1] c 37 N80-18393
- VRANAS, T.**  
Impact energy absorber Patent  
[NASA-CASE-XLA-01530] c 14 N71-23092  
High temperature strain gage calibration fixture  
[NASA-CASE-LAR-11500-1] c 35 N78-24523  
Hot foil transducer skin friction sensor  
[NASA-CASE-LAR-12321-1] c 35 N82-24470
- VUKELICH, E. K.**  
Method and device for detecting voids in low density material Patent  
[NASA-CASE-MFS-20044] c 14 N71-28993

**VYKUKAL, H. C.**

- Universal pilot restraint suit and body support therefor Patent  
[NASA-CASE-XAC-00405] c 05 N70-41819
- Hard space suit Patent  
[NASA-CASE-XAC-07043] c 05 N71-23161
- Locomotion and restraint aid Patent  
[NASA-CASE-ARC-10153] c 05 N71-28619
- Space suit having improved waist and torso movement  
[NASA-CASE-ARC-10275-1] c 05 N72-22092
- Anthropomorphic master/slave manipulator system  
[NASA-CASE-ARC-10756-1] c 54 N77-32721
- Walking boot assembly  
[NASA-CASE-ARC-11101-1] c 54 N78-17675
- Spacesuit mobility joints  
[NASA-CASE-ARC-11058-1] c 54 N78-31735
- Spacesuit torso closure  
[NASA-CASE-ARC-11100-1] c 54 N78-31736
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721
- Spacesuit mobility knee joints  
[NASA-CASE-ARC-11058-2] c 54 N79-24651
- Spine immobilization apparatus  
[NASA-CASE-ARC-11167-1] c 52 N81-25662
- Pressure suit joint analyzer  
[NASA-CASE-ARC-11314-1] c 54 N82-26987
- Shoulder and hip joint for hard space suits and the like  
[NASA-CASE-ARC-11534-1] c 54 N84-33021

**W**

**WADE, O. W.**

- Method and apparatus for tensile testing of metal foil  
[NASA-CASE-LAR-10208-1] c 35 N78-18400

**WAGES, C. G.**

- Ultrasonic scanning system for in-place inspection of brazed tube joints  
[NASA-CASE-MFS-20767-1] c 38 N74-15130

**WAGNER, A. P.**

- Inverter ratio failure detector  
[NASA-CASE-NPO-13160-1] c 35 N74-18090

**WAGNER, C. A.**

- Rotating raster generator  
[NASA-CASE-FRC-10071-1] c 32 N74-20813
- Smoothing filter for digital to analog conversion  
[NASA-CASE-FRC-11025-1] c 33 N82-24417

**WAGNER, H. R.**

- Collapsible loop antenna for space vehicle Patent  
[NASA-CASE-XMF-00437] c 07 N70-40202

**WAGNER, W. B.**

- Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577

**WAKELYN, N. T.**

- Production of high purity silicon carbide Patent  
[NASA-CASE-XLA-00158] c 26 N70-36805
- Apparatus for producing high purity silicon carbide crystals Patent  
[NASA-CASE-XLA-02057] c 26 N70-40015
- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00284] c 15 N71-16075
- Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent  
[NASA-CASE-XLA-00302] c 15 N71-16077
- Thermal control coating Patent  
[NASA-CASE-XLA-01995] c 18 N71-23047

**WALD, D.**

- Differential temperature transducer Patent  
[NASA-CASE-XAC-00812] c 14 N71-15598

**WALKER, D. J.**

- Flame detector operable in presence of proton radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410

**WALKER, H. J.**

- Annular wing  
[NASA-CASE-FRC-11007-2] c 05 N82-26277

**WALKER, H. M.**

- Space environmental work simulator Patent  
[NASA-CASE-XMF-07488] c 11 N71-18773
- Cork-resin ablative insulation for complex surfaces and method for applying the same  
[NASA-CASE-MFS-23626-1] c 24 N80-26388

**WALKER, W. L.**

- Lightweight reflector assembly  
[NASA-CASE-NPO-13707-1] c 74 N77-28933
- Protective telescoping shield for solar concentrator  
[NASA-CASE-NPO-16236-1] c 44 N84-25164

**WALL, R. J.**

- Automated clinical system for chromosome analysis  
[NASA-CASE-NPO-13913-1] c 52 N79-12694

**WALL, W. A.**

- Automatic weld torch guidance control system  
[NASA-CASE-MFS-25807] c 37 N83-20154

**WALL, W. A., JR.**

- Apparatus for welding torch angle and seam tracking control Patent  
[NASA-CASE-XMF-03287] c 15 N71-15607
- Automatic closed circuit television arc guidance control Patent  
[NASA-CASE-MFS-13046] c 07 N71-19433
- Automatic welding speed controller Patent  
[NASA-CASE-XMF-01730] c 15 N71-23050
- Welding skate with computerized control Patent  
[NASA-CASE-XMF-07069] c 15 N71-23815
- Internal flare angle gauge Patent  
[NASA-CASE-XMF-04415] c 14 N71-24693
- Computerized system for translating a torch head  
[NASA-CASE-MFS-23620-1] c 37 N79-10421

**WALLACE, C. J.**

- Membrane consisting of polyquaternary amine ion exchange polymer network interpenetrating the chains of thermoplastic matrix polymer  
[NASA-CASE-NPO-14001-1] c 27 N81-14076

**WALLACE, E. D.**

- Apparatus for tensile testing Patent  
[NASA-CASE-XKS-06250] c 14 N71-15600
- Valve seat with resilient support member Patent  
[NASA-CASE-XKS-02582] c 15 N71-21234
- Weld preparation machine Patent  
[NASA-CASE-XKS-07953] c 15 N71-26134
- Pseudo-noise test set for communication system evaluation  
[NASA-CASE-MFS-22671-1] c 35 N75-21582
- Method of and means for testing a tape record/playback system  
[NASA-CASE-MFS-22671-2] c 35 N77-17426

**WALLINGFORD, W. M.**

- Differential phase shift keyed communication system  
[NASA-CASE-MSC-14065-1] c 32 N74-26654
- Differential phase shift keyed signal resolver  
[NASA-CASE-MSC-14066-1] c 33 N74-27705

**WALLIO, M. A.**

- Electric-arc heater Patent  
[NASA-CASE-XLA-00330] c 33 N70-34540

**WALLIS, D. E.**

- Low-frequency radio navigation system  
[NASA-CASE-NPO-15264-1] c 04 N84-27713

**WALLSON, R. E.**

- Self-locking mechanical center joint  
[NASA-CASE-LAR-12884-1] c 37 N82-29606
- Mechanical end joint system for structural column elements  
[NASA-CASE-LAR-12482-1] c 37 N82-32732
- Synchronously deployable truss structure  
[NASA-CASE-LAR-13117-1] c 18 N84-16250

**WALSH, J. M.**

- Specific wavelength colorimeter  
[NASA-CASE-MSC-14081-1] c 35 N74-27860

**WALSH, J. V.**

- Pressure shutdown method and device for coal conversion systems  
[NASA-CASE-NPO-15100-1] c 44 N84-14583

**WALSH, T. C.**

- Vibration damping system Patent  
[NASA-CASE-XMS-01620] c 23 N71-15673

**WALSH, T. J.**

- Apparatus for making a metal slurry product Patent  
[NASA-CASE-XLE-00010] c 15 N70-33382

**WALSH, T. M.**

- Interferometric rotation sensor  
[NASA-CASE-ARC-10278-1] c 14 N73-25463

**WALTER, H. U.**

- Method of crystallization  
[NASA-CASE-MFS-23001-1] c 76 N77-32919

**WALTERS, R. M.**

- Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699

**WALTON, T. S.**

- Electronic checkout system for space vehicles Patent  
[NASA-CASE-XKS-08012-2] c 31 N71-15568

**WANG, D. S.**

- Installing fiber insulation  
[NASA-CASE-MSC-16973-1] c 37 N81-14317

**WANG, Q. Y.**

- A synchronous binary array divider  
[NASA-CASE-ERC-10180-1] c 60 N74-20836

**WANG, T.**

- Acoustic particle separation  
[NASA-CASE-NPO-15559-1] c 71 N82-29112

**WANG, T. G.**

- Material suspension within an acoustically excited resonant chamber  
[NASA-CASE-NPO-13263-1] c 12 N75-24774
- Heat operated cryogenic electrical generator  
[NASA-CASE-NPO-13303-1] c 20 N75-24837

**Acoustic energy shaping**

- [NASA-CASE-NPO-13802-1] c 71 N78-10837

**Acoustic driving of rotor**

- [NASA-CASE-NPO-14005-1] c 71 N79-20827

**Method and apparatus for producing concentric hollow spheres**

- [NASA-CASE-NPO-14596-1] c 31 N81-33319

**Method and apparatus for producing gas-filled hollow spheres**

- [NASA-CASE-NPO-14596-3] c 31 N83-31896

**System for monitoring physical characteristics of fluids**

- [NASA-CASE-NPO-15400-1] c 34 N83-31993

**Acoustic system for material transport**

- [NASA-CASE-NPO-15453-1] c 71 N83-32515

**Acoustic bubble removal method**

- [NASA-CASE-NPO-15334-1] c 71 N83-35781

**Acoustic suspension system**

- [NASA-CASE-NPO-15435-1] c 71 N83-36846

**Acoustic rotation control**

- [NASA-CASE-NPO-15689-1] c 71 N84-23233

**WANG, W. S.**

- Low temperature latching solenoid  
[NASA-CASE-MSC-18106-1] c 33 N82-11357

**WANGER, R. P.**

- Apparatus for sensor failure detection and correction in a gas turbine engine control system  
[NASA-CASE-LEW-12907-2] c 07 N81-19115

**WARD, D. R.**

- Automatically deploying nozzle exit cone extension Patent  
[NASA-CASE-XLE-01640] c 31 N71-15637

**WARD, J. F.**

- Variable geometry rotor system  
[NASA-CASE-LAR-10557] c 02 N72-11018

**WARD, J. O.**

- Digital automatic gain amplifier  
[NASA-CASE-KSC-11008-1] c 33 N79-22373

**WARD, W. D.**

- Vapor liquid separator Patent  
[NASA-CASE-XMF-04042] c 15 N71-23023

**WARKENTINE, D. K.**

- Automatic battery charger Patent  
[NASA-CASE-XNP-04758] c 03 N71-24605

**WARNECK, P.**

- Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent  
[NASA-CASE-LAR-10180-1] c 06 N71-13461

**WARREN, A. D.**

- Installing fiber insulation  
[NASA-CASE-MSC-16973-1] c 37 N81-14317

**WARREN, A. P.**

- Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-36410

**Space capsule ejection assembly Patent**

- [NASA-CASE-XMF-03169] c 31 N71-15675

**Method and apparatus for securing to a spacecraft Patent**

- [NASA-CASE-MFS-11133] c 31 N71-16222

**WARREN, E. L.**

- Improved compliant hydrodynamic fluid journal bearing  
[NASA-CASE-LEW-13670-1] c 37 N84-22959

**WATERS, W. J.**

- Nickel-base alloy Patent  
[NASA-CASE-XLE-00283] c 17 N70-36616

**Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent**

- [NASA-CASE-XLE-02082] c 17 N71-16026

**Method of forming superalloys**

- [NASA-CASE-LEW-10874-1] c 17 N72-22535

**Method of heat treating a formed powder product material**

- [NASA-CASE-LEW-10805-3] c 26 N74-10521

**Method of forming articles of manufacture from superalloy powders**

- [NASA-CASE-LEW-10805-2] c 37 N74-13179

**Nickel base alloy**

- [NASA-CASE-LEW-12270-1] c 26 N77-32280

**Multicolor printing plate joining**

- [NASA-CASE-LEW-13598-1] c 35 N84-22930

**WATKINS, V. E., JR.**

- Structural pressure sensitive silicone adhesives  
[NASA-CASE-LAR-13270-1] c 27 N84-32532

**WATSON, J. D.**

- Tumbler system to provide random motion  
[NASA-CASE-XGS-02437] c 15 N69-21472

**WATSON, J. E.**

- High temperature spark plug Patent  
[NASA-CASE-XLE-00660] c 28 N70-39925

**WATSON, N. D.**

- Payload/burned-out motor case separation system Patent  
[NASA-CASE-XLA-05369] c 31 N71-15687

- WATSON, V. R.  
Electric arc apparatus Patent  
[NASA-CASE-XAC-01877] c 09 N71-20816
- WATTS, D. J.  
Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859
- WAYLAND, H. J.  
Servo-controlled intravital microscope system  
[NASA-CASE-NPO-13214-1] c 35 N75-25123
- WEAR, J. D.  
Rocket engine Patent  
[NASA-CASE-XLE-00342] c 28 N70-37980
- WEATHERS, G. D.  
Pseudo-noise test set for communication system evaluation  
[NASA-CASE-MFS-22671-1] c 35 N75-21582  
Method of and means for testing a tape record/playback system  
[NASA-CASE-MFS-22671-2] c 35 N77-17426
- WEAVER, L. B.  
Multiple in-line docking capability for rotating space stations  
[NASA-CASE-MFS-20855-1] c 15 N77-10112
- WEAVER, W. R.  
Solar pumped laser  
[NASA-CASE-LAR-12870-1] c 36 N84-18542
- WEBB, D. D.  
Sprayable low density ablator and application process  
[NASA-CASE-MFS-23508-1] c 24 N78-24290
- WEBB, D. L.  
Video sync processor Patent  
[NASA-CASE-KSC-10002] c 10 N71-25865  
Electronic video editor  
[NASA-CASE-KSC-10003] c 10 N73-13235
- WEBB, J. A., JR.  
Circuit for detecting initial systole and diastolic notch  
[NASA-CASE-LEW-11581-1] c 54 N75-13531
- WEBB, J. B.  
Delayed simultaneous release mechanism  
[NASA-CASE-GSC-10814-1] c 03 N73-20039
- WEBBOM, B. W.  
Tubular sublimatory evaporator heat sink  
[NASA-CASE-ARC-10912-1] c 34 N77-19353  
Spacesuit torso closure  
[NASA-CASE-ARC-11100-1] c 54 N78-31736  
Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721  
Pressure suit joint analyzer  
[NASA-CASE-ARC-11314-1] c 54 N82-26987
- WEBER, G. E.  
Method of making reinforced composite structure  
[NASA-CASE-LEW-12619-1] c 24 N77-19171
- WEBER, G. J.  
Multiple circuit protector device  
[NASA-CASE-XMS-02744] c 33 N75-27249  
Fused switch  
[NASA-CASE-XMS-01244-1] c 33 N79-33393
- WEBER, L.  
Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions  
[NASA-CASE-NPO-12122-1] c 24 N78-14203
- WEBER, R. J.  
Venting vapor apparatus Patent  
[NASA-CASE-XLE-00288] c 15 N70-34247  
Supersonic-combustion rocket  
[NASA-CASE-LEW-11058-1] c 20 N74-13502
- WEBSTER, C. R.  
Discharge cell for optogalvanic spectroscopy having orthogonal relationship between the probe laser and discharge axis  
[NASA-CASE-NPO-18271-1] c 36 N84-15537
- WEBSTER, J. A.  
Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides  
[NASA-CASE-MFS-22356-1] c 23 N75-30256  
Polyimides of ether-linked aryl tetracarboxylic dianhydrides  
[NASA-CASE-MFS-22355-1] c 23 N78-15288
- WEBSTER, L. D.  
Clutchless multiple drive source for output shaft  
[NASA-CASE-ARC-11325-1] c 37 N82-22498  
Sidelooking laser altimeter for a flight simulator  
[NASA-CASE-ARC-11312-1] c 38 N83-34304
- WEETON, J. W.  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-02428] c 17 N70-33288  
Method of making fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-00231] c 17 N70-38198  
Reinforced metallic composites Patent  
[NASA-CASE-XLE-00228] c 17 N70-38490  
Method for producing fiber reinforced metallic composites Patent  
[NASA-CASE-XLE-03925] c 18 N71-22894
- Process for producing dispersion strengthened nickel with aluminum Patent  
[NASA-CASE-XLE-06969] c 17 N71-24142  
Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent  
[NASA-CASE-XLE-03940] c 18 N71-26153  
Method of making fiber composites  
[NASA-CASE-LEW-10424-2-2] c 18 N72-25539  
Refractory metal base alloy composites  
[NASA-CASE-XLE-03940-2] c 17 N72-28536  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-1] c 24 N81-17170  
Method for alleviating thermal stress damage in laminates  
[NASA-CASE-LEW-12493-2] c 24 N81-28179
- WEIDENHAMER, J. H.  
Isolation coupling arrangement for a torque measuring system  
[NASA-CASE-XLA-04897] c 15 N72-22482
- WEIDMAN, D. J.  
High intensity heat and light unit Patent  
[NASA-CASE-LAR-00141] c 09 N70-33312
- WEIDNER, J. P.  
Orbiter/launch system  
[NASA-CASE-LAR-12250-1] c 14 N81-26181
- WEIGAND, A. J.  
Texturing polymer surfaces by transfer casting  
[NASA-CASE-LEW-13120-1] c 27 N82-28440
- WEINGART, J. M.  
Stacked solar cell arrays  
[NASA-CASE-NPO-11771] c 03 N73-20040
- WEINSTEIN, L.  
Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794  
Determination of antimicrobial susceptibilities on infected urines without isolation  
[NASA-CASE-GSC-12048-1] c 52 N79-14750
- WEINSTEIN, L. M.  
Continuous laminar smoke generator  
[NASA-CASE-LAR-13014-1] c 28 N83-35158
- WEINSTEIN, M.  
Bonding thermoelectric elements to nonmagnetic refractory metal electrodes  
[NASA-CASE-XGS-04554] c 15 N69-39786  
Segmenting lead telluride-silicon germanium thermoelements Patent  
[NASA-CASE-XGS-05718] c 26 N71-16037
- WEISS, P. F.  
Acquisition and tracking system for optical radar  
[NASA-CASE-MFS-20125] c 18 N72-13437
- WEISS, S.  
Pretreatment method for anti-wettable materials  
[NASA-CASE-XMS-03537] c 15 N69-21471
- WEITZEL, D. F.  
Propellant tank pressurization system Patent  
[NASA-CASE-XNP-00650] c 27 N71-28929
- WEITZEL, D. H.  
Resilience testing device Patent  
[NASA-CASE-XLA-08254] c 14 N71-26161
- WELCH, W. A.  
Gas filter mounting structure  
[NASA-CASE-MSC-12287] c 14 N72-23457
- WELLING, C. E.  
Thermally activated foaming compositions Patent  
[NASA-CASE-LAR-10373-1] c 18 N71-26155
- WELLMAN, J. B.  
Gas flow control device  
[NASA-CASE-NPO-11479] c 15 N73-13482
- WELLS, A. F.  
Water system virus detection  
[NASA-CASE-MSC-16098-1] c 51 N79-10693
- WELLS, B. R.  
Apparatus for ejection of an instrument cover  
[NASA-CASE-XMF-04132] c 15 N69-27502
- WELLS, F. E.  
Positive displacement flowmeter Patent  
[NASA-CASE-XMF-02822] c 14 N70-41994  
Remote control manipulator for zero gravity environment  
[NASA-CASE-MFS-14405] c 15 N72-28495
- WELLS, I. D.  
Wind and solar powered turbine  
[NASA-CASE-NPO-15496-1] c 44 N84-23018
- WELLS, W. H.  
Rotable accurate reflector system for telescopes Patent  
[NASA-CASE-NPO-10468] c 23 N71-33229
- WELLS, W. L.  
Electric-arc heater Patent  
[NASA-CASE-XLA-00330] c 33 N70-34540
- WENDT, A. J.  
Rotating mandrel for assembly of inflatable devices Patent  
[NASA-CASE-XLA-04143] c 15 N71-17687
- WENZEL, G. E.  
Amplifier drift tester  
[NASA-CASE-XMS-05562-1] c 09 N69-39986
- WERNER, E. A.  
Method and apparatus for making curved reflectors Patent  
[NASA-CASE-XLE-08917] c 15 N71-15597  
Apparatus for making curved reflectors Patent  
[NASA-CASE-XLE-08917-2] c 15 N71-24838
- WESSELSKI, C. J.  
Energy absorbing structure Patent Application  
[NASA-CASE-MSC-12279-1] c 15 N70-35679  
Low onset rate energy absorber  
[NASA-CASE-MSC-12279] c 15 N72-17450
- WEST, R. L.  
Device for handling printed circuit cards Patent  
[NASA-CASE-MFS-20453] c 15 N71-29133
- WEST, R. W., JR.  
Method and apparatus for making a heat insulating and ablative structure Patent  
[NASA-CASE-XMS-02009] c 33 N71-20834
- WESTBROOK, R. M.  
Electrode construction Patent  
[NASA-CASE-ARC-10043-1] c 05 N71-11183
- WESTER, G. W.  
The dc-to-dc converters employing staggered-phase power switches with two-loop control  
[NASA-CASE-NPO-13512-1] c 33 N77-10428  
Phase substitution of spare converter for a failed one of parallel phase staggered converters  
[NASA-CASE-NPO-13812-1] c 33 N77-30385
- WESTFALL, L. J.  
Arc spray fabrication of metal matrix composite monolayer  
[NASA-CASE-LEW-13828-1] c 24 N84-15203
- WESTON, K. C.  
Heat shield Patent  
[NASA-CASE-XMS-00486] c 33 N70-33344
- WESTPHAL, J. A.  
Method and apparatus for aligning a laser beam projector Patent  
[NASA-CASE-NPO-11087] c 23 N71-29125
- WETMORE, J. W.  
Aircraft instrument Patent  
[NASA-CASE-XLA-00487] c 14 N70-40157
- WETZLER, D. G.  
Thrust-isolating mounting  
[NASA-CASE-MFS-21860-1] c 18 N74-27397
- WEYLER, G. M., JR.  
Rotatable mass for a flywheel  
[NASA-CASE-MFS-23051-1] c 37 N79-10422  
Method of manufacture of bonded fiber flywheel  
[NASA-CASE-MFS-23674-1] c 24 N81-29163
- WEZNER, F. S.  
Collapsible reflector Patent  
[NASA-CASE-XMS-03454] c 09 N71-20658
- WHEATLEY, D. G.  
Hermetic sealed vibration damper Patent  
[NASA-CASE-MSC-10959] c 15 N71-26243
- WHEELER, D. R.  
Refractory coatings and method of producing the same  
[NASA-CASE-LEW-13169-1] c 26 N82-29415  
Refractory coatings  
[NASA-CASE-LEW-13169-2] c 26 N82-30371
- WHEELER, R. K.  
Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient  
[NASA-CASE-ERC-10073-1] c 24 N74-19769
- WHEELER, S.  
Wind tunnel microphone structure Patent  
[NASA-CASE-XNP-00250] c 11 N71-28779
- WHEELER, S. B.  
Fluid containers and resealable septum therefor Patent  
[NASA-CASE-NPO-10123] c 15 N71-24835
- WHIFFEN, E. L.  
Grain refinement control in TIG arc welding  
[NASA-CASE-MSC-19095-1] c 37 N75-19683
- WHIPPLE, D. W.  
Microcircuit negative cutter  
[NASA-CASE-XLA-09843] c 15 N72-27485
- WHIPPLE, E. C., JR.  
Method and apparatus for determining satellite orientation utilizing spatial energy sources Patent  
[NASA-CASE-XGS-00468] c 21 N70-34297
- WHIPPLE, R. D.  
Extended moment arm anti-spin device  
[NASA-CASE-LAR-12979-1] c 02 N83-29173
- WHISENANT, J. T.  
Inspection gage for boss Patent  
[NASA-CASE-XMF-04968] c 14 N71-17658



## WHITACRE, H. E.

- Quick release hook tape Patent  
[NASA-CASE-XMS-10660-1] c 15 N71-25975
- Scientific experiment flexible mount  
[NASA-CASE-MS-C-12372-1] c 31 N72-25842
- WHITCOMB, R. T.**  
Airfoil shape for flight at subsonic speeds  
[NASA-CASE-LAR-10585-1] c 02 N78-22154
- WHITE, A. R.**  
Scientific experiment flexible mount  
[NASA-CASE-MS-C-12372-1] c 31 N72-25842
- WHITE, E. C.**  
Method of making pressurized panel Patent  
[NASA-CASE-XLA-08916-1] c 15 N71-29018
- Pressurized panel  
[NASA-CASE-XLA-08916-2] c 14 N73-28487
- Lightweight, variable solidity knitted parachute fabric  
[NASA-CASE-LAR-10776-1] c 02 N74-10034
- WHITE, F. A.**  
Coincidence apparatus for detecting particles  
[NASA-CASE-XLA-07813] c 14 N72-17328
- Low energy electron magnetometer using a monoenergetic electron beam  
[NASA-CASE-LAR-12706-1] c 35 N84-12444
- WHITE, J. A.**  
Magnetically centered liquid column float Patent  
[NASA-CASE-XAC-00030] c 14 N70-34820
- WHITE, M. H.**  
Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403
- WHITE, P. R.**  
Solar tracking system  
[NASA-CASE-MFS-23999-1] c 44 N81-24520
- WHITE, W. F.**  
Dual resonant cavity absorption cell Patent  
[NASA-CASE-LAR-10305] c 14 N71-26137
- Resonant waveguide stark cell  
[NASA-CASE-LAR-11352-1] c 33 N75-26245
- WHITE, W. L.**  
Dual towline anti-spin device  
[NASA-CASE-LAR-13076-1] c 05 N83-34934
- WHITE, W. T.**  
Method of bonding plasticized elastomer to metal and articles produced thereby  
[NASA-CASE-MFS-25181-1] c 27 N82-24340
- WHITEHEAD, A. B.**  
Method and means for helium/hydrogen ratio measurement by alpha scattering  
[NASA-CASE-NPO-14079-1] c 25 N80-20334
- WHITEHEAD, C. W.**  
Apparatus for inserting and removing specimens from high temperature vacuum furnaces  
[NASA-CASE-LAR-10841-1] c 31 N74-27900
- WHITFIELD, C. E.**  
Selective plating of etched circuits without removing previous plating Patent  
[NASA-CASE-XGS-03120] c 15 N71-24047
- WHITMORE, F. C.**  
Continuous magnetic flux pump  
[NASA-CASE-XNP-01187] c 15 N73-28516
- Superconductive magnetic-field-trapping device  
[NASA-CASE-XNP-01185] c 26 N73-28710
- Magnetic-flux pump  
[NASA-CASE-XNP-01188] c 15 N73-32381
- WHITT, W. D.**  
General purpose rocket furnace  
[NASA-CASE-MFS-23480-1] c 12 N79-26075
- High gradient directional solidification furnace  
[NASA-CASE-MFS-25863-1] c 35 N84-16531
- WHITTEN, D. E.**  
Dual stage check valve  
[NASA-CASE-MS-C-13587-1] c 15 N73-30459
- WHITTENBERGER, J. D.**  
Zirconium modified nickel-copper alloy  
[NASA-CASE-LEW-12245-1] c 26 N77-20201
- Method and apparatus for gripping uniaxial fibrous composite materials  
[NASA-CASE-LEW-13758-1] c 24 N84-27829
- WIBERG, R. E.**  
Combustion products generating and metering device  
[NASA-CASE-GSC-11095-1] c 14 N72-10375
- WIEBE, E. R.**  
Automatic thermal switch Patent  
[NASA-CASE-XNP-03796] c 23 N71-15487
- Helium refrigerator and method for decontaminating the refrigerator  
[NASA-CASE-NPO-10634] c 23 N72-25619
- Refrigerated coaxial coupling  
[NASA-CASE-NPO-13504-1] c 33 N75-30430
- Helium refrigerator  
[NASA-CASE-NPO-13435-1] c 31 N76-14284
- Multistation refrigeration system  
[NASA-CASE-NPO-13839-1] c 31 N78-25256

## WIECH, R. E.

- Zeta potential flowmeter Patent  
[NASA-CASE-XNP-06509] c 14 N71-23226
- WIKER, G. A.**  
Compact artificial hand  
[NASA-CASE-NPO-13906-1] c 54 N79-24652
- Automatic multi-banking of memory for microprocessors  
[NASA-CASE-NPO-15295-1] c 60 N82-11785
- WILEM, R. T.**  
Natural turbulence electrical power generator  
[NASA-CASE-LAR-11551-1] c 44 N80-29834
- WILEY, F. L.**  
Temperature regulation circuit Patent  
[NASA-CASE-XNP-02792] c 14 N71-28958
- WILEY, P. H.**  
Logarithmic circuit with wide dynamic range  
[NASA-CASE-GSC-12145-1] c 33 N78-32339
- WILGUS, D. S.**  
Adaptive voting computer system  
[NASA-CASE-MS-C-13932-1] c 62 N74-14920
- WILHELM, H. E.**  
Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field  
[NASA-CASE-LEW-12485-1] c 25 N78-25148
- WILHITE, W. F.**  
Micropacked column for a chromatographic system  
[NASA-CASE-XNP-04816] c 06 N69-39936
- WILKEY, J. W., JR.**  
Velocity package Patent  
[NASA-CASE-XLA-01339] c 31 N71-15692
- WILKINS, J. R.**  
Apparatus for microbiological sampling  
[NASA-CASE-LAR-11069-1] c 35 N75-12272
- Automatic inoculating apparatus  
[NASA-CASE-LAR-11074-1] c 51 N75-13502
- Automatic microbial transfer device  
[NASA-CASE-LAR-11354-1] c 35 N75-27330
- Measurement of gas production of microorganisms  
[NASA-CASE-LAR-11326-1] c 35 N75-33368
- Automated single-slide staining device  
[NASA-CASE-LAR-11649-1] c 51 N77-27677
- Electrochemical detection device  
[NASA-CASE-LAR-11922-1] c 25 N79-24073
- Indirect microbial detection  
[NASA-CASE-LAR-12520-1] c 51 N81-28698
- Apparatus and process for microbial detection and enumeration  
[NASA-CASE-LAR-12709-1] c 35 N82-28604
- WILL, H. A.**  
Process for fabricating SiC semiconductor devices  
[NASA-CASE-LEW-12094-1] c 78 N78-25049
- WILL, R. W.**  
Attitude control and damping system for spacecraft Patent  
[NASA-CASE-XLA-02551] c 21 N71-21708
- WILLIAMS, B. A.**  
Thermistor holder for skin temperature measurements  
[NASA-CASE-ARC-10855-1] c 52 N77-10780
- Liquid cooled brassiere and method of diagnosing malignant tumors therewith  
[NASA-CASE-LAR-11007-1] c 52 N77-14736
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721
- WILLIAMS, D. D.**  
Apparatus for changing the orientation and velocity of a spinning body traversing a path Patent  
[NASA-CASE-HQN-00936] c 31 N71-29050
- WILLIAMS, D. N.**  
Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02786] c 17 N71-20743
- WILLIAMS, E. F.**  
Automatic liquid inventory collecting and dispensing unit  
[NASA-CASE-LAR-11071-1] c 35 N75-19611
- WILLIAMS, J. G.**  
Light regulator  
[NASA-CASE-LAR-10836-1] c 26 N72-27784
- Light intensity strain analysis  
[NASA-CASE-LAR-10765-1] c 32 N73-20740
- WILLIAMS, J. R.**  
Holographic thin film analyzer  
[NASA-CASE-MFS-20823-1] c 16 N73-30476
- WILLIAMS, L. A.**  
Apparatus for electrolytically tapered or contoured cavities  
[NASA-CASE-XNP-08835-1] c 37 N80-14395
- WILLIAMS, L. A., JR.**  
Fluid velocity measuring device  
[NASA-CASE-LAR-11729-1] c 34 N79-12359
- WILLIAMS, M. D.**  
Measurement of time differences between luminous events Patent  
[NASA-CASE-XLA-01987] c 23 N71-23976

- Volumetric direct nuclear pumped laser  
[NASA-CASE-LAR-12183-1] c 36 N79-18307
- WILLIAMS, M. L.**  
Non-destructive method for applying and removing instrumentation on helicopter rotor blades  
[NASA-CASE-LAR-11201-1] c 35 N78-24515
- WILLIAMS, R. M.**  
Photoelectrochemical electrodes  
[NASA-CASE-NPO-15458-1] c 25 N84-12262
- Corrosion resistant coating  
[NASA-CASE-NPO-15928-1] c 26 N84-12289
- Chemically rechargeable battery  
[NASA-CASE-NPO-16024-1] c 44 N84-23020
- WILLIAMS, S. R.**  
Bidirectional step torque filter with zero backlash characteristic Patent  
[NASA-CASE-XGS-04227] c 15 N71-21744
- WILLIAMS, T. E.**  
System for and method of freezing biological tissue  
[NASA-CASE-GSC-12173-1] c 51 N79-10694
- WILLIAMS, W. F.**  
System for interference signal nulling by polarization adjustment  
[NASA-CASE-NPO-13140-1] c 32 N75-24982
- Dual band combiner for horn antenna  
[NASA-CASE-NPO-14519-1] c 32 N80-23524
- WILLIS, A. E.**  
Static inverters which sum a plurality of waves Patent  
[NASA-CASE-XMF-00683] c 08 N71-18752
- A dc to dc converter  
[NASA-CASE-MFS-25430-1] c 33 N84-18453
- WILLNER, K.**  
Inverter oscillator with voltage feedback  
[NASA-CASE-NPO-10760] c 09 N72-25254
- WILNER, B. M.**  
Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
[NASA-CASE-XLE-04526] c 03 N71-11052
- WILSON, A. H.**  
Vehicular impact absorption system  
[NASA-CASE-NPO-14014-1] c 37 N79-10420
- WILSON, D. J.**  
Wind measurement system  
[NASA-CASE-MFS-23362-1] c 47 N77-10753
- WILSON, E. M.**  
Wind tunnel  
[NASA-CASE-LAR-10135-1] c 09 N79-21083
- WILSON, I. J.**  
Method of producing complex aluminum alloy parts of high temper, and products thereof  
[NASA-CASE-MS-C-18693-1] c 26 N78-24333
- WILSON, J. C.**  
Exhaust flow deflector  
[NASA-CASE-LAR-11570-1] c 34 N76-18384
- Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400
- WILSON, L. R.**  
Phase modulating with odd and even finite power series of a modulating signal  
[NASA-CASE-LAR-11607-1] c 32 N77-14282
- WILSON, M. L.**  
Nondestructive spot test method for titanium and titanium alloys  
[NASA-CASE-LAR-10539-1] c 17 N73-12547
- Nondestructive spot test method for magnesium and magnesium alloys  
[NASA-CASE-LAR-10953-1] c 17 N73-27446
- WILSON, M. N., JR.**  
Space simulator Patent  
[NASA-CASE-XNP-00459] c 11 N70-38675
- WILSON, R. E.**  
Automatic pump Patent  
[NASA-CASE-XNP-04731] c 15 N71-24042
- WILSON, R. L.**  
Twin-capacitive shaft angle encoder with analog output signal  
[NASA-CASE-ARC-10897-1] c 33 N77-31404
- WILSON, T. G.**  
Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation  
[NASA-CASE-HQN-10792-1] c 33 N74-11049
- WILSON, T. L.**  
Automatic flowmeter calibration system  
[NASA-CASE-KSC-11076-1] c 34 N81-26402
- WILSON, W. A.**  
Methods and apparatus employing vibratory energy for wrenching Patent  
[NASA-CASE-MFS-20586] c 15 N71-17686
- WILSON, W. O.**  
Rocket chamber leak test fixture  
[NASA-CASE-XFR-09479] c 14 N69-27503
- WIMBER, R. T.**  
Silicide coatings for refractory metals Patent  
[NASA-CASE-XLE-10910] c 18 N71-29040

- WINBLADE, R. L.**  
Energy management system for glider type vehicle Patent  
[NASA-CASE-XFR-00756] c 02 N71-13421
- WING, L. D.**  
Automatic thermal switch  
[NASA-CASE-GSC-12415-1] c 33 N82-24419  
Automatic thermal switch  
[NASA-CASE-GSC-12553-1] c 34 N83-28356
- WINGFIELD, G. A.**  
Resonant waveguide stark cell  
[NASA-CASE-LAR-11352-1] c 33 N75-26245
- WINIARSKI, F. J.**  
Wobble gear drive mechanism  
[NASA-CASE-WOO-00625] c 37 N78-17385
- WINITZ, M.**  
Amino acid analysis  
[NASA-CASE-NPO-12130-1] c 25 N75-14844  
Reduction of blood serum cholesterol  
[NASA-CASE-NPO-12118-1] c 52 N75-15270
- WINKELSTEIN, R. A.**  
Noninterruptible digital counting system Patent  
[NASA-CASE-XNP-09759] c 08 N71-24891  
Controlled oscillator system with a time dependent output frequency  
[NASA-CASE-NPO-11962-1] c 33 N74-10194  
Baseband signal combiner for large aperture antenna array  
[NASA-CASE-NPO-14641-1] c 32 N81-28308
- WINKLER, C. E.**  
Static inverters which sum a plurality of waves Patent  
[NASA-CASE-XMF-00663] c 08 N71-18752
- WINKLER, H. E.**  
Electrophotolysis oxidation system for measurement of organic concentration in water  
[NASA-CASE-MSC-16497-1] c 25 N82-12166  
Bio-medical flow sensor  
[NASA-CASE-MSC-18761-1] c 52 N83-27577
- WINKLER, T.**  
AC logic flip-flop circuits Patent  
[NASA-CASE-XGS-00823] c 10 N71-15910
- WINN, L. E.**  
Ellipsograph for pantograph Patent  
[NASA-CASE-XLA-03102] c 14 N71-21079  
Lathe tool bit and holder for machining fiberglass materials  
[NASA-CASE-XLA-10470] c 15 N72-21489  
Liquid waste feed system  
[NASA-CASE-LAR-10365-1] c 05 N72-27102
- WINTUCKY, E. G.**  
Ion sputter textured graphite  
[NASA-CASE-LEW-12919-1] c 24 N83-10117  
Ion sputter textured graphite electrode plates  
[NASA-CASE-LEW-12919-2] c 70 N84-28565
- WIRTH, M. N.**  
Selective data segment monitoring system  
[NASA-CASE-ARC-10899-1] c 60 N77-19760
- WISANDER, D. W.**  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-2] c 37 N82-26674  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-1] c 27 N82-29453  
Laser surface fusion of plasma sprayed ceramic turbine seals  
[NASA-CASE-LEW-13269-1] c 18 N83-20996  
Fully plasma-sprayed compliant backed ceramic turbine seal  
[NASA-CASE-LEW-13268-3] c 37 N83-28450  
Method of fabricating an abradable gas path seal  
[NASA-CASE-LEW-13269-2] c 37 N84-22957
- WISE, R. C.**  
Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012
- WISE, T. E.**  
Microwave dichroic plate  
[NASA-CASE-GSC-12171-1] c 33 N79-28416
- WITHEROW, W. K.**  
Dual laser optical system and method for studying fluid flow  
[NASA-CASE-MFS-25315-1] c 36 N83-29680  
Method of and apparatus for double-exposure holographic interferometry  
[NASA-CASE-MFS-25405-1] c 35 N84-22929
- WITTE, R. S.**  
Gas ion laser construction for electrically isolating the pressure gauge thereof  
[NASA-CASE-MFS-22597] c 36 N78-17366
- WITTMANN, A. E.**  
Method of coating circuit paths on printed circuit boards with solder Patent  
[NASA-CASE-XMF-01599] c 09 N71-20705
- WITTROCK, E. P.**  
Metal shearing energy absorber  
[NASA-CASE-HQN-10638-1] c 15 N73-30460
- WITZKE, W. R.**  
Apparatus for making a metal slurry product Patent  
[NASA-CASE-XLE-00010] c 15 N70-33382  
Process for making a high toughness-high strength ion alloy  
[NASA-CASE-LEW-12542-2] c 26 N79-22271  
High toughness-high strength iron alloy  
[NASA-CASE-LEW-12542-3] c 26 N80-32484
- WOBIQ, O. A.**  
Fluid power transmission Patent  
[NASA-CASE-XMS-01445] c 12 N71-16031  
Apparatus for machining geometric cones Patent  
[NASA-CASE-XMS-04292] c 15 N71-22722
- WOELLER, F. H.**  
Chelate-modified polymers for atmospheric gas chromatography  
[NASA-CASE-ARC-11154-1] c 25 N80-23383
- WOJCIECHOWSKI, C. J.**  
Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749
- WOJTASINSKI, R. J.**  
Lightning tracking system  
[NASA-CASE-KSC-10729-1] c 09 N73-32110  
Automatic lightning detection and photographic system  
[NASA-CASE-KSC-10728-1] c 14 N73-32319  
Electric field measuring and display system  
[NASA-CASE-KSC-10731-1] c 33 N74-27862  
Lightning current measuring systems  
[NASA-CASE-KSC-10807-1] c 33 N75-26246  
Lightning current waveform measuring system  
[NASA-CASE-KSC-11018-1] c 33 N79-10337
- WOLCZOK, J. M.**  
Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346
- WOLF, C. B.**  
Method of producing silicon  
[NASA-CASE-NPO-14382-1] c 31 N80-18231
- WOLF, D. A.**  
Heat pipe thermal switch  
[NASA-CASE-GSC-12812-1] c 34 N83-35307
- WOLF, F. T.**  
Air bearing  
[NASA-CASE-WLP-10002] c 15 N72-17451
- WOLFE, J. F.**  
Thermoset-thermoplastic aromatic polyamides  
[NASA-CASE-LAR-12723-1] c 27 N81-15107  
Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746
- WOLFF, J. R.**  
High speed binary to decimal conversion system Patent  
[NASA-CASE-XGS-01230] c 08 N71-19544
- WOLLER, J. A.**  
Evacuation port seal Patent  
[NASA-CASE-XMF-03290] c 15 N71-23256
- WOLOWICZ, C. H.**  
Free wing assembly for an aircraft  
[NASA-CASE-FRC-10092-1] c 05 N79-12061
- WOLTHUIS, R. A.**  
Contourgraph system for monitoring electrocardiograms  
[NASA-CASE-MSC-13407-1] c 10 N72-20225  
Apparatus and method for processing Korotkov sounds  
[NASA-CASE-MSC-13998-1] c 52 N74-26626
- WOLVERTON, B. C.**  
Method for treating wastewater using microorganisms and vascular aquatic plants  
[NASA-CASE-NSTL-10] c 45 N84-12654
- WONG, R. Y.**  
Plurality of photosensitive cells on a pyramidal base for planetary trackers  
[NASA-CASE-XNP-04180] c 07 N89-39736  
Apparatus for absorbing and measuring power Patent  
[NASA-CASE-XLE-00720] c 14 N70-40201  
Television signal processing system Patent  
[NASA-CASE-NPO-10140] c 07 N71-24742  
Video signal enhancement system with dynamic range compression and modulation index expansion Patent  
[NASA-CASE-NPO-10343] c 07 N71-27341
- WONG, W. J.**  
Phase protection system for ac power lines  
[NASA-CASE-MSC-17832-1] c 33 N74-14956
- WOO, K. E.**  
High impact antenna Patent  
[NASA-CASE-NPO-10231] c 07 N71-26101  
Multi-purpose antenna employing dish reflector with plural coaxial horn feeds  
[NASA-CASE-NPO-11264] c 07 N72-25174
- WOO, R. T.**  
Low loss dichroic plate  
[NASA-CASE-NPO-13171-1] c 32 N74-11000
- WOOD, A. D.**  
Transient heat transfer gauge Patent  
[NASA-CASE-XNP-09802] c 33 N71-15641
- WOOD, C. E.**  
Gas ion laser construction for electrically isolating the pressure gauge thereof  
[NASA-CASE-MFS-22597] c 36 N78-17366
- WOOD, G. E.**  
Simultaneous acquisition of tracking data from two stations  
[NASA-CASE-NPO-13292-1] c 32 N75-15854
- WOOD, G. M.**  
Low energy electron magnetometer using a monoenergetic electron beam  
[NASA-CASE-LAR-12706-1] c 35 N84-12444
- WOOD, G. M., JR.**  
Gas analyzer for bi-gaseous mixtures Patent  
[NASA-CASE-XLA-01131] c 14 N71-10774
- WOOD, G. P.**  
Plasma accelerator Patent  
[NASA-CASE-XLA-00675] c 25 N70-33267
- WOOD, J. W.**  
Broadband video process with very high input impedance  
[NASA-CASE-NPO-10199] c 09 N72-17156
- WOOD, K. E.**  
High temperature penetrator assembly with bayonet plug and ramp-activated lock  
[NASA-CASE-MSC-18526-1] c 37 N82-24494  
Apparatus for accurately preloading auger attachment means for frangible protective material  
[NASA-CASE-MSC-18791-1] c 37 N83-36482
- WOOD, L. L.**  
Continuous plasma light source  
[NASA-CASE-XNP-04167-2] c 25 N72-24753  
Continuous plasma laser  
[NASA-CASE-XNP-04167-3] c 36 N77-19416
- WOOD, P. C.**  
Process for the preparation of calcium superoxide  
[NASA-CASE-ARC-11053-1] c 25 N79-10162  
Use of glow discharge in fluidized beds  
[NASA-CASE-ARC-11245-1] c 28 N82-18401
- WOOD, R. A.**  
Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02786] c 17 N71-20743
- WOOD, R. C.**  
Apparatus for sampling particulates in gases  
[NASA-CASE-HQN-10037-1] c 14 N73-27376
- WOODBURY, R. C.**  
Noise limiter Patent  
[NASA-CASE-NPO-10169] c 10 N71-24844  
Gated compressor, distortionless signal limiter  
[NASA-CASE-NPO-11820-1] c 32 N74-19786  
Apparatus for scanning the surface of a cylindrical body  
[NASA-CASE-NPO-11861-1] c 36 N74-20009
- WOODGATE, B. E.**  
Method and apparatus for slicing crystals  
[NASA-CASE-GSC-12281-1] c 76 N80-18951
- WOODIE, P. E.**  
Thermal conductive connection and method of making same Patent  
[NASA-CASE-XMS-02087] c 09 N70-41717
- WOODS, G. J.**  
Electronic checkout system for space vehicles Patent  
[NASA-CASE-XMS-08012-2] c 31 N71-15566
- WOODS, G. M., JR.**  
Instrument for measuring potentials on two dimensional electric field plots Patent  
[NASA-CASE-XLA-08493] c 10 N71-18421
- WOODS, J. M.**  
Powerplexer  
[NASA-CASE-MSC-12396-1] c 03 N73-31988
- WOOLFSON, M. G.**  
Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent  
[NASA-CASE-XMS-01315] c 09 N70-41875  
Pulse modulator providing fast rise and fall times Patent  
[NASA-CASE-XMS-04919] c 09 N71-23270  
Multiple slope sweep generator Patent  
[NASA-CASE-XMS-03542] c 09 N71-28926
- WOOLLAM, J. A.**  
Hall effect magnetometer  
[NASA-CASE-LEW-11632-2] c 35 N75-13213  
Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-1] c 28 N78-24365  
Atomic hydrogen storage  
[NASA-CASE-LEW-12081-2] c 28 N80-20402  
Atomic hydrogen storage method and apparatus  
[NASA-CASE-LEW-12081-3] c 28 N81-14103
- WORNOM, D. E.**  
Leading edge curvature based on convective heating Patent  
[NASA-CASE-XLA-01486] c 01 N71-23497

## WORTMAN, J. J.

- Semiconductor p-n junction stress and strain sensor [NASA-CASE-XLA-04980] c 09 N89-27422
- Method of making semiconductor p-n junction stress and strain sensor [NASA-CASE-XLA-04980-2] c 14 N72-28438
- Particulate and aerosol detector [NASA-CASE-LAR-11434-1] c 35 N76-22509
- WRIGHT, D. B.**  
Method for measuring cutaneous sensory perception [NASA-CASE-MSC-13809-1] c 05 N72-25122
- WRIGHT, D. E.**  
Penetrating radiation system for detecting the amount of liquid in a tank Patent [NASA-CASE-MSC-12280] c 27 N71-16348
- WRIGHT, E. E., JR.**  
System for sterilizing objects [NASA-CASE-KSC-11085-1] c 54 N81-24724
- WRIGHT, L. N.**  
Vibrophonocardiograph Patent [NASA-CASE-XFR-07172] c 05 N71-27234
- WRIGHT, W. H.**  
Voltage regulator with plural parallel power source sections Patent [NASA-CASE-GSC-10891-1] c 10 N71-26626
- Shunt regulation electric power system [NASA-CASE-GSC-10135] c 33 N78-17296
- WRINKLE, W. W.**  
Apparatus for remote handling of materials [NASA-CASE-LAR-10834-1] c 37 N74-18123
- WU, C.**  
Real-time multiple-look synthetic aperture radar processor for spacecraft applications [NASA-CASE-NPO-14054-1] c 32 N82-12297
- Method and apparatus for self-calibration and phasing of array antenna [NASA-CASE-NPO-15920-1] c 32 N82-33593
- Method and apparatus for contour mapping using synthetic aperture radar [NASA-CASE-NPO-15939-1] c 43 N83-20324
- Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter [NASA-CASE-NPO-15519-1] c 32 N84-34651
- WU, V. C.**  
Apparatus for determining changes in limb volume [NASA-CASE-MSC-18759-1] c 52 N83-27578
- WUENSCHER, H. F.**  
Recoverable rocket vehicle Patent [NASA-CASE-XMF-00389] c 31 N70-34176
- Serpentuator Patent [NASA-CASE-XMF-05344] c 31 N71-16345
- Space manufacturing machine Patent [NASA-CASE-MFS-20410] c 15 N71-18214
- Method of making foamed materials in zero gravity [NASA-CASE-XMF-09902] c 15 N72-11387
- Hermetically sealed elbow actuator [NASA-CASE-MFS-14710] c 09 N72-22195
- WUERKER, R. F.**  
Spatial filter for Q-switched lasers [NASA-CASE-LEW-12184-1] c 36 N77-32478
- Microbalance [NASA-CASE-MSC-11242] c 35 N78-17358
- WYBLE, C. W.**  
Thermal conductive connection and method of making same Patent [NASA-CASE-XMS-02087] c 09 N70-41717
- WYDEVEN, T.**  
Preparation of dielectric coating of variable dielectric constant by plasma polymerization [NASA-CASE-ARC-10892-2] c 27 N79-14214
- Use of glow discharge in fluidized beds [NASA-CASE-ARC-11245-1] c 28 N82-18401
- WYDEVEN, T. J.**  
Process for the preparation of calcium superoxide [NASA-CASE-ARC-11053-1] c 25 N79-10162
- Electric discharge for treatment of trace contaminants [NASA-CASE-ARC-10975-1] c 33 N79-15245
- Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers [NASA-CASE-ARC-10915-2] c 27 N79-18052
- Reverse osmosis membrane of high urea rejection properties [NASA-CASE-ARC-10980-1] c 27 N80-23452
- Method for the preparation of thin-skinned asymmetric reverse osmosis membranes and products thereof [NASA-CASE-ARC-11359-1] c 51 N84-28361
- WYDEVEN, T. J., JR.**  
Method of preparing water purification membranes [NASA-CASE-ARC-10643-1] c 25 N75-12087
- WYLLIE, G. M.**  
Sealed battery gas manifold construction Patent [NASA-CASE-XNP-03378] c 03 N71-11051
- WYMAN, C. L.**  
Acquisition and tracking system for optical radar [NASA-CASE-MFS-20125] c 16 N72-13437

- Strain gauge ambiguity sensor for segmented mirror active optical system [NASA-CASE-MFS-20506-1] c 35 N75-12273
- System for the measurement of ultra-low stray light levels [NASA-CASE-MFS-23513-1] c 74 N79-11865
- WYNVEEN, R. A.**  
Iodine generator for reclaimed water purification [NASA-CASE-MSC-14632-1] c 54 N78-14784
- WYSOCKI, J. J.**  
Radiation resistant silicon semiconductor devices Patent [NASA-CASE-XGS-07801] c 09 N71-12513

## Y

- YAGER, S. P.**  
Piping arrangement through a double chamber structure [NASA-CASE-XNP-08882] c 15 N69-39935
- YAMAKAWA, K. A.**  
Scriber for silicon wafers [NASA-CASE-NPO-15539-1] c 37 N82-11469
- Apparatus and method to keep the walls of a free space reactor free from deposits of solid materials [NASA-CASE-NPO-15851-1] c 73 N83-12988
- YAMAKI, D. A.**  
A solvent resistant, thermoplastic aromatic poly(midesulfone) and process for preparing same [NASA-CASE-LAR-12858-2] c 27 N83-29391
- Solvent resistant thermoplastic aromatic poly(midesulfone) and process for preparing same [NASA-CASE-LAR-12858-1] c 27 N83-34041
- YAMAUCHI, S. T.**  
Degassifying and mixing apparatus for liquids [NASA-CASE-MSC-18936-1] c 35 N83-29652
- YANAGITA, H.**  
Rhomboid prism pair for rotating the plane of parallel light beams [NASA-CASE-ARC-11311-1] c 74 N83-13978
- YANG, C. Y.**  
Zirconium carbide as an electrocatalyst for the chromous-chromic redox couple [NASA-CASE-LEW-13246-1] c 44 N83-27344
- YANG, L. C.**  
Optically actuated two position mechanical mover [NASA-CASE-NPO-13105-1] c 37 N74-21060
- Optically detonated explosive device [NASA-CASE-NPO-11743-1] c 28 N74-27425
- Compact pulsed laser having improved heat conductance [NASA-CASE-NPO-13147-1] c 38 N77-25502
- Seismic vibration source [NASA-CASE-NPO-14112-1] c 46 N79-22679
- Underwater seismic source [NASA-CASE-NPO-14255-1] c 46 N79-23555
- Portable heatable container [NASA-CASE-NPO-14237-1] c 44 N80-20808
- Instrumentation for sensing moisture content of material using a transient thermal pulse [NASA-CASE-NPO-15494-1] c 35 N82-25484
- Method and device for detection of a substance [NASA-CASE-NPO-14940-1] c 33 N83-31954
- Apparatus and method for destructive removal of particles contained in flowing fluid [NASA-CASE-NPO-15426-1] c 35 N84-17555
- Instrumentation for sensing moisture content of material using a transient thermal pulse [NASA-CASE-NPO-15494-2] c 35 N84-22935
- YANG, M.**  
Trace water sensor [NASA-CASE-NPO-15722-1] c 35 N83-20084
- YANG, P. M.**  
Fluid power transmitting gas bearing Patent [NASA-CASE-ERC-10097] c 15 N71-28465
- YARIV, A.**  
Arrangement for damping the resonance in a laser diode [NASA-CASE-NPO-15980-1] c 36 N82-28618
- YASUI, R. K.**  
Solar cell submodule Patent [NASA-CASE-XNP-05821] c 03 N71-11056
- Solar cell matrix Patent [NASA-CASE-NPO-10821] c 03 N71-19545
- Solar cell matrix [NASA-CASE-NPO-11190] c 03 N71-34044
- Stacked solar cell arrays [NASA-CASE-NPO-11771] c 03 N73-20040
- Solar cell grid patterns [NASA-CASE-NPO-13087-2] c 44 N76-31666
- Solar array strip and a method for forming the same [NASA-CASE-NPO-13652-1] c 44 N79-17314
- Bonding machine for forming a solar array strip [NASA-CASE-NPO-13652-2] c 44 N79-24431
- Method for forming a solar array strip [NASA-CASE-NPO-13652-3] c 44 N80-14474
- YEAGER, P. R.**  
Gas analyzer for bi-gaseous mixtures Patent [NASA-CASE-XLA-01131] c 14 N71-10774
- Thermopile vacuum gage tube simulator Patent [NASA-CASE-XLA-02758] c 14 N71-18481
- Fast scan control for deflection type mass spectrometers [NASA-CASE-LAR-11428-1] c 35 N74-34857
- YEH, C.**  
Fiber distributed feedback laser [NASA-CASE-NPO-13531-1] c 36 N76-24553
- YEH, Y. C. M.**  
Schottky barrier solar cell [NASA-CASE-NPO-13689-2] c 44 N81-29525
- Method of Fabricating Schottky Barrier solar cell [NASA-CASE-NPO-13689-4] c 44 N82-28780
- YEN, S. P. S.**  
Ion-exchange hollow fibers [NASA-CASE-NPO-13309-1] c 25 N81-19244
- YEUNG, J. A.**  
Ranging system [NASA-CASE-NPO-15865-1] c 74 N83-12991
- YIN, L. I.**  
Low intensity X-ray and gamma-ray imaging device [NASA-CASE-GSC-12263-1] c 74 N79-20857
- Low intensity X-ray and gamma-ray spectrometer [NASA-CASE-GSC-12587-1] c 35 N82-32659
- The 3-dimensional and tomographic imaging device for X-ray and gamma-ray emitting objects [NASA-CASE-GSC-12851-1] c 35 N83-20083
- Real-time 3-D X-ray and gamma-ray viewer [NASA-CASE-GSC-12640-1] c 74 N84-11920
- YOSHINO, S. Y.**  
Bonding or repairing process [NASA-CASE-MSC-12357] c 15 N73-12489
- YOST, V. H.**  
Apparatus for welding torch angle and seam tracking control Patent [NASA-CASE-XMF-03287] c 15 N71-15607
- YOST, W. T.**  
Liquid-immersible electrostatic ultrasonic transducer [NASA-CASE-LAR-12465-1] c 33 N82-26572
- YOUNG, A. L.**  
Control valve and co-axial variable injector Patent [NASA-CASE-XNP-09702] c 15 N71-17654
- Semitoroidal diaphragm cavitating valve Patent [NASA-CASE-XNP-09704] c 12 N71-18615
- YOUNG, D. L.**  
Fluidized bed coal combustion reactor [NASA-CASE-NPO-14273-1] c 25 N82-11144
- YOUNG, D. R.**  
Skeletal stressing method and apparatus Patent [NASA-CASE-ARC-10100-1] c 05 N71-24738
- Programmable physiological infusion [NASA-CASE-ARC-10447-1] c 52 N74-22771
- YOUNG, H.**  
Radio frequency shielded enclosure Patent [NASA-CASE-XMF-09422] c 07 N71-19436
- YOUNG, K. M.**  
High voltage power supply [NASA-CASE-GSC-12818-1] c 33 N83-29594
- YOUNG, L. R.**  
Display research collision warning system [NASA-CASE-HQN-10703] c 21 N73-13643
- Adaptive polarization separation [NASA-CASE-LAR-12196-1] c 33 N81-26358
- YOUNG, R. N.**  
Ac power amplifier Patent Application [NASA-CASE-LAR-10218-1] c 09 N70-34559
- Automatic balancing device Patent [NASA-CASE-LAR-10774] c 10 N71-13545
- Independent power generator [NASA-CASE-LAR-11208-1] c 44 N78-32539
- Electrochemical detection device [NASA-CASE-LAR-11922-1] c 25 N79-24073
- YOUNG, S. G.**  
Method of protecting a surface with a silicon-slurry/aluminide coating [NASA-CASE-LEW-13343-1] c 27 N82-28441
- Silicon-slurry/aluminide coating [NASA-CASE-LEW-13343] c 26 N83-31795
- YOUNG, W. J.**  
Phonocardiograph transducer Patent [NASA-CASE-XMS-05365] c 14 N71-22993
- YOUNG, W. R.**  
Apparatus for measuring an aircraft's speed and height [NASA-CASE-LAR-12275-1] c 35 N79-18296
- YOUNGBERG, C. L.**  
Sphere forming method and apparatus [NASA-CASE-NPO-15070-1] c 31 N83-35176

**YOUNGBLUTH, O., JR.**

- Method and apparatus for mapping the sensitivity of the face of a photodetector specifically a PMT  
[NASA-CASE-LAR-10320-1] c 09 N72-23172
- Versatile LDV burst simulator  
[NASA-CASE-LAR-11859-1] c 35 N79-14349

**YOUNGHANS, J. L.**

- Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999

**YU, I. P.**

- Multiple band circularly polarized microstrip antenna  
[NASA-CASE-MSC-18334-1] c 32 N80-32604

**Z****ZABOWER, H. R.**

- Hand-held photomicroscope  
[NASA-CASE-ARC-10468-1] c 14 N73-33361

**ZAHLAVA, B. A.**

- Vacuum probe surface sampler  
[NASA-CASE-LAR-10623-1] c 14 N73-30395

**ZAPLATYNSKY, I.**

- Method and apparatus for coating substrates using a laser  
[NASA-CASE-LEW-13526-1] c 38 N84-22944

**ZAREMBA, J. G.**

- Passive caging mechanism Patent  
[NASA-CASE-GSC-10306-1] c 15 N71-24694

**ZARETSKY, E. V.**

- Method of improving the reliability of a rolling element system Patent  
[NASA-CASE-XLE-02999] c 15 N71-16052

**ZAVADA, E. J.**

- Frangible tube energy dissipation Patent  
[NASA-CASE-XLA-00754] c 15 N70-34850

**ZAVESKY, R. J.**

- Improved heat exchanger for electrothermal devices  
[NASA-CASE-LEW-14037-1] c 20 N84-32425

**ZAVIANTSEFF, V.**

- Apparatus for ionization analysis  
[NASA-CASE-ARC-10017-1] c 14 N72-29464

**ZEANAH, H. W.**

- Filtering device  
[NASA-CASE-MFS-22729-1] c 32 N76-21366

**ZEBKER, H. A.**

- Synthetic aperture radar target simulator  
[NASA-CASE-NPO-15024-1] c 32 N84-27951

**ZEBROWSKI, Z. E.**

- Altitude control system for sounding rockets Patent  
[NASA-CASE-XGS-01854] c 31 N71-24750

**ZEBUS, P. P.**

- Adjustable securing base  
[NASA-CASE-MSC-19666-1] c 37 N78-17383

- Variable contour securing system  
[NASA-CASE-MSC-18270-1] c 37 N78-27423

**ZEIGER, R. J.**

- Concentric differential gearing arrangement  
[NASA-CASE-ARC-10462-1] c 37 N74-27901

**ZELLNER, G. J.**

- Gas cooled high temperature thermocouple Patent  
[NASA-CASE-XLE-09475-1] c 33 N71-15568

**ZEMAN, J. R.**

- Lamp modulator  
[NASA-CASE-KSC-10565] c 09 N72-25250

**ZERGER, R. S.**

- Constant temperature heat sink for calorimeters Patent  
[NASA-CASE-XMF-04208] c 33 N71-29051

**ZERLAUT, G. A.**

- Stabilized zinc oxide coating compositions Patent  
[NASA-CASE-XMF-07770-2] c 18 N71-26772

- Synthesis of zinc titanate pigment and coatings containing the same  
[NASA-CASE-MFS-13532] c 18 N72-17532

**ZERWEKH, P. S.**

- Ultrasonic transducer with Gaussian radial pressure distribution  
[NASA-CASE-LAR-12967-1] c 35 N84-22932

**ZIEMKE, M. C.**

- Constant temperature heat sink for calorimeters Patent  
[NASA-CASE-XMF-04208] c 33 N71-29051

**ZIMMERMAN, B. G.**

- Sun tracker with rotatable plane-parallel plate and two photocells Patent  
[NASA-CASE-XGS-01159] c 21 N71-10678

- Gravity gradient attitude control system Patent  
[NASA-CASE-GSC-10555-1] c 21 N71-27324

- Passive dual spin misalignment compensators  
[NASA-CASE-GSC-11479-1] c 35 N74-28097

**ZIMMERMAN, E. F.**

- Apparatus for applying cover slides  
[NASA-CASE-NPO-10575] c 03 N72-25019

**ZIMMERMAN, J. E.**

- Coal-shale interface detection system  
[NASA-CASE-MFS-23720-2] c 43 N80-14423

**ZIMMERMAN, P. A.**

- Chassis unit insert tightening-extract device  
[NASA-CASE-XMS-01077-1] c 37 N79-33467

**ZIMMERMAN, R. L.**

- Thermally operated valve Patent  
[NASA-CASE-XLE-00815] c 15 N70-35407

- Double optic system for ion engine Patent  
[NASA-CASE-XNP-02839] c 28 N70-41922

**ZIOLKOWSKI, A. J.**

- Multi-lobar scan horizon sensor Patent  
[NASA-CASE-XGS-00809] c 21 N70-35427

**ZLATKIS, A.**

- Analysis of volatile organic compounds  
[NASA-CASE-MSC-14428-1] c 23 N77-17161

**ZMUDA, L. J.**

- Safety-type locking pin  
[NASA-CASE-MFS-18495] c 15 N72-11385

**ZMUDZINAS, J. S.**

- Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6  
[NASA-CASE-NPO-13993-1] c 72 N79-13826

**ZOHAR, S.**

- Counting digital filters  
[NASA-CASE-NPO-11821-1] c 08 N73-26175

**ZOOK, H. A.**

- Meteoroid capture cell construction  
[NASA-CASE-MSC-12423-1] c 91 N76-30131

**ZORUMSKI, W. E.**

- Remote controlled tubular disconnect Patent  
[NASA-CASE-XLA-01396] c 03 N71-12259

- Noise suppressor  
[NASA-CASE-LAR-11141-1] c 07 N74-32418

**ZOTTARELLI, L. J.**

- Magnetic core current steering commutator Patent  
[NASA-CASE-NPO-10201] c 08 N71-18694

- Drive circuit utilizing two cores Patent  
[NASA-CASE-XNP-01318] c 10 N71-23033

- Current steering switch Patent  
[NASA-CASE-XNP-08567] c 09 N71-26000

- Digital memory in which the driving of each word location is controlled by a switch core Patent  
[NASA-CASE-XNP-01466] c 10 N71-26434

**ZRUBEK, W. E.**

- System for monitoring signal amplitude ranges  
[NASA-CASE-XMS-04061-1] c 09 N69-39885

**ZUCCARO, J. J.**

- Electrode construction Patent  
[NASA-CASE-ARC-10043-1] c 05 N71-11193

**ZUCKERWAR, A. J.**

- Instrumentation for measurement of aircraft noise and sonic boom  
[NASA-CASE-LAR-11173-1] c 35 N75-19614

- Instrumentation for measuring aircraft noise and sonic boom  
[NASA-CASE-LAR-11476-1] c 07 N76-27232

- Differential sound level meter  
[NASA-CASE-LAR-12106-1] c 71 N78-14867

- High-temperature microphone system  
[NASA-CASE-LAR-12375-1] c 32 N79-24203

- Flow resistivity instrument  
[NASA-CASE-LAR-13053-1] c 43 N83-29783

- Acoustic ground impedance meter  
[NASA-CASE-LAR-12995-1] c 35 N84-22933

**ZURASKY, J. L.**

- Monitoring deposition of films  
[NASA-CASE-MFS-20675] c 26 N73-26751

**ZWIENER, J. M.**

- Real time reflectometer  
[NASA-CASE-MFS-23118-1] c 35 N77-31465

**ZYGIELBAUM, A. I.**

- Communications link for computers  
[NASA-CASE-NPO-11161] c 08 N72-25207

- Digital video display system using cathode ray tube  
[NASA-CASE-NPO-11342] c 09 N72-25248

- Numerical computer peripheral interactive device with manual controls  
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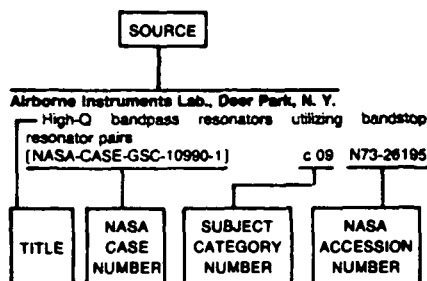
- Digital demodulator-correlator  
[NASA-CASE-NPO-13982-1] c 32 N79-14267

## NASA PATENT ABSTRACTS BIBLIOGRAPHY

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## Section 2

## Typical Source Index Listing



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Rotary actuator  
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Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent  
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Method and apparatus for nondestructive testing of pressure vessels  
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- Aerojet-General Corp., Glendale, Calif.**  
Rotating shaft seal Patent  
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- Aerojet-General Corp., Sacramento, Calif.**  
Process of forming particles in a cryogenic path Patent  
[NASA-CASE-NPO-10250] c 23 N71-16212

- Aeronautical Research Associates of Princeton, Inc., N. J.**  
Integrated lift/drag controller for aircraft  
[NASA-CASE-ARC-10456-1] c 05 N75-12930
- Air Products and Chemicals, Inc., Philadelphia, Pa.**  
Low heat leak connector for cryogenic system  
[NASA-CASE-XLE-02367-1] c 31 N79-21225
- Airborne Instruments Lab., Deer Park, N. Y.**  
High-Q bandpass resonators utilizing bandstop resonator pairs  
[NASA-CASE-GSC-10990-1] c 09 N73-26195
- AIRResearch Mfg. Co., Torrance, Calif.**  
Combinational logic for generating gate drive signals for phase control rectifiers  
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Adaptive control system for line-commutated inverters  
[NASA-CASE-MFS-25209-1] c 33 N83-35227
- Airtronics, Inc., Washington, D.C.**  
Protection for energy conversion systems  
[NASA-CASE-XGS-04808] c 03 N69-25146  
Inverter with means for base current shaping for sweeping charge carriers from base region Patent  
[NASA-CASE-XGS-06226] c 10 N71-25950
- American Air Filter Co., Inc., St. Louis, Mo.**  
Gas filter mounting structure  
[NASA-CASE-MSC-12297] c 14 N72-23457
- American Optical Co., Pittsburgh, Pa.**  
Telespectrograph Patent  
[NASA-CASE-XLA-03273] c 14 N71-18699
- American Optical Co., Southbridge, Mass.**  
Pneumatic mirror support system  
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- American Science and Engineering, Inc., Cambridge, Mass.**  
X-ray reflection collimator adapted to focus X-radiation directly on a detector Patent  
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- Ampex Corp., Redwood City, Calif.**  
Method for making conductors for ferrite memory arrays  
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- Anocut Engineering Co., Chicago, Ill.**  
Apparatus for electrolytically tapered or contoured cavities  
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- Applied Magnetics Corp., Goleta, Calif.**  
Magnetic recording head and method of making same Patent  
[NASA-CASE-GSC-10097-1] c 08 N71-27210
- Applied Physics Lab., Johns Hopkins Univ., Laurel, Md.**  
Open loop digital frequency multiplier  
[NASA-CASE-MSC-12709-1] c 33 N77-24375
- Applied Physics Lab., Johns Hopkins Univ., Silver Spring, Md.**  
Telemetry synchronizer  
[NASA-CASE-GSC-11868-1] c 17 N76-22245
- Applied Space Products, Inc., Palo Alto, Calif.**  
Intumescent paints Patent  
[NASA-CASE-ARC-10089-1] c 18 N71-15469
- Army Air Mobility Research and Development Lab., Hampton, Va.**  
Helicopter anti-torque system using strakes  
[NASA-CASE-LAR-13233-1] c 05 N84-33400
- Army Aviation Research and Development Command, Moffett Field, Calif.**  
Clutchless multiple drive source for output shaft  
[NASA-CASE-ARC-11325-1] c 37 N82-22496
- Army Structures Lab., Hampton, Va.**  
Line hook with loop expander  
[NASA-CASE-LAR-12875-1] c 37 N83-20156
- ARO, Inc., Arnold Air Force Station, Tenn.**  
Rhomboid prism pair for rotating the plane of parallel light beams  
[NASA-CASE-ARC-11311-1] c 74 N83-13978
- Astro Research Corp., Carpinteria, Calif.**  
Foldable beam  
[NASA-CASE-LAR-12077-1] c 31 N81-25259
- Astro-Space Labs., Inc., Huntsville, Ala.**  
Linear differential pressure sensor Patent  
[NASA-CASE-XMF-01974] c 14 N71-22752

- Athens Coll., Ala.**  
Apparatus and method for heating a material in a transparent ampoule  
[NASA-CASE-MFS-25436-1] c 27 N83-36220
- Atlantic Research Corp., Alexandria, Va.**  
Spherically-shaped rocket motor Patent  
[NASA-CASE-XHQ-01897] c 28 N70-35381
- Auburn Research Foundation, Inc., Ala.**  
Shear modulated fluid amplifier Patent  
[NASA-CASE-MFS-10412] c 12 N71-17578  
Laser coolant and ultraviolet filter  
[NASA-CASE-MFS-20180] c 16 N72-12440
- Auburn Univ., Ala.**  
Automatic frequency control for FM transmitter  
[NASA-CASE-MFS-21540-1] c 32 N74-19790  
Isolated output system for a class D switching-mode amplifier  
[NASA-CASE-MFS-21616-1] c 33 N75-30429  
Frequency modulated oscillator  
[NASA-CASE-MFS-23181-1] c 33 N77-17351
- Autonetics, Anaheim, Calif.**  
Adaptive voting computer system  
[NASA-CASE-MSC-13932-1] c 62 N74-14920
- Avco Corp., Cincinnati, Ohio.**  
Method for forming pyrrone molding powders and products of said method  
[NASA-CASE-LAR-10423-1] c 23 N82-29358
- Avco Corp., New York.**  
Signal multiplexer  
[NASA-CASE-XGS-01110] c 07 N69-24334
- Avco Corp., Wilmington, Mass.**  
Method and apparatus for making a heat insulating and ablative structure Patent  
[NASA-CASE-XMS-02009] c 33 N71-20834

## B

- Baldwin Electronics, Inc., Little Rock, Ark.**  
Digital plus analog output encoder  
[NASA-CASE-GSC-12115-1] c 62 N76-31946
- Baldwin-Lima-Hamilton Corp., San Francisco, Calif.**  
Valve actuator Patent  
[NASA-CASE-XHQ-01208] c 15 N70-35409
- Bail Bros. Research Corp., Boulder, Colo.**  
Turnstile slot antenna  
[NASA-CASE-GSC-11428-1] c 32 N74-20864  
Star scanner  
[NASA-CASE-GSC-11569-1] c 89 N74-30886
- Barnes Engineering Co., Stamford, Conn.**  
Multi-lobar scan horizon sensor Patent  
[NASA-CASE-XGS-00809] c 21 N70-35427  
Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent  
[NASA-CASE-XNP-06957] c 14 N71-21088  
Miniature carbon dioxide sensor and methods  
[NASA-CASE-MSC-13332-1] c 14 N72-21408  
Wedge immersed thermistor bolometers  
[NASA-CASE-XGS-01245-1] c 35 N79-33449
- Battelle Columbus Labs., Ohio.**  
Attaching of strain gages to substrates  
[NASA-CASE-FRC-10093-1] c 35 N80-20560
- Battelle Memorial Inst., Columbus, Ohio.**  
Process for preparation of dianilinosilanes Patent  
[NASA-CASE-XMF-06409] c 06 N71-23230  
Process for preparation of high-molecular-weight polyaryloxysilanes Patent  
[NASA-CASE-XMF-08874] c 06 N71-28807  
Method for determining presence of OH in magnesium oxide  
[NASA-CASE-NPO-10774] c 06 N72-17095  
Porous electrode comprising a bonded stack of pieces of corrugated metal foil  
[NASA-CASE-GSC-11368-1] c 09 N73-32108  
Method of making porous conductive supports for electrodes  
[NASA-CASE-GSC-11367-1] c 44 N74-19692
- Battelle Memorial Inst., Richland, Wash.**  
Low temperature aluminum alloy Patent  
[NASA-CASE-XMF-02786] c 17 N71-20743

# Battelle Northwest Labs., Richland, Wash.

**Battelle Northwest Labs., Richland, Wash.**  
Preparation of high purity copper fluoride  
[NASA-CASE-LEW-10794-1] c 06 N72-17093

**Bausch and Lomb, Inc., Rochester, N. Y.**  
Petzval type objective including field shaping lens  
Patent  
[NASA-CASE-GSC-10700] c 23 N71-30027

**Baylor Univ., Houston, Tex.**  
Illumination system including a virtual light source  
Patent  
[NASA-CASE-HQN-10781] c 23 N71-30292

**EEG sleep analyzer and method of operation Patent**  
[NASA-CASE-MS-13282-1] c 05 N71-24729

**Compressible biomedical electrode**  
[NASA-CASE-MS-13648] c 05 N72-27103

**Beckman Instruments, Inc., Anaheim, Calif.**  
Pressure modulating valve  
[NASA-CASE-MS-14905-1] c 37 N77-28487

**Beckman Instruments, Inc., Fullerton, Calif.**  
Pulse activated polarographic hydrogen detector  
Patent  
[NASA-CASE-XMF-06531] c 14 N71-17575

**Electronic divider and multiplier using photocells**  
Patent  
[NASA-CASE-XFR-05637] c 09 N71-19480

**Pulse generating circuit employing switch means on ends of delay line for alternately charging and discharging same**  
Patent  
[NASA-CASE-XNP-00745] c 10 N71-28960

**Gas operated actuator**  
[NASA-CASE-NPO-11340] c 15 N72-33477

**Specific wavelength colorimeter**  
[NASA-CASE-MS-14081-1] c 35 N74-27860

**Beckman Instruments, Inc., South Pasadena, Calif.**  
Pneumatic system for controlling and actuating pneumatic cyclic devices  
[NASA-CASE-XMS-04843] c 03 N69-21469

**Becton, Dickinson and Co., Rutherford, N.J.**  
Vacuum probe surface sampler  
[NASA-CASE-LAR-10623-1] c 14 N73-30395

**Beech Aircraft Corp., Wichita, Kans.**  
X-ray determination of parts alignment  
[NASA-CASE-MS-20418-1] c 37 N83-17882

**Bell Aerospace Co., Buffalo, N. Y.**  
Modulator for tone and binary signals  
[NASA-CASE-GSC-11743-1] c 32 N75-24981

**Correlation type phase detector**  
[NASA-CASE-GSC-11744-1] c 33 N75-28243

**Bell Aerosystems Co., Buffalo, N. Y.**  
Lunar landing flight research vehicle  
Patent  
[NASA-CASE-XFR-00829] c 31 N70-34966

**Flexibly connected support and skin**  
Patent  
[NASA-CASE-XLA-01027] c 31 N71-24035

**Injection head for delivering liquid fuel and oxidizers**  
[NASA-CASE-NPO-10046] c 28 N72-17843

**Flight control system**  
[NASA-CASE-MS-13397-1] c 21 N72-25595

**Bell and Howell Co., Chicago, Ill.**  
Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge  
[NASA-CASE-ARC-11057-1] c 27 N78-31233

**Process for producing a well-adhered durable optical coating on an optical plastic substrate**  
[NASA-CASE-ARC-11039-1] c 74 N78-32854

**Bellcomm, Inc., Washington, D. C.**  
Physical correction filter for improving the optical quality of an image  
[NASA-CASE-HQN-10542-1] c 74 N75-25706

**Bendix Corp., Ann Arbor, Mich.**  
Circuit breaker utilizing magnetic latching relays  
Patent  
[NASA-CASE-MS-11277] c 09 N71-29008

**Bendix Corp., Columbia, Md.**  
Microwave dichroic plate  
[NASA-CASE-GSC-12171-1] c 33 N79-28418

**Bendix Corp., Davenport, Iowa.**  
Dual stage check valve  
[NASA-CASE-MS-13587-1] c 15 N73-30459

**Bendix Corp., Detroit, Mich.**  
Deformable vehicle wheel  
Patent  
[NASA-CASE-MFS-20400] c 31 N71-18611

**Bendix Corp., Huntsville, Ala.**  
Multi axes vibration fixtures  
[NASA-CASE-MFS-20242] c 14 N73-19421

**Bendix Corp., Kennedy Space Center, Fla.**  
Color perception tester  
[NASA-CASE-KSC-10278] c 05 N72-16015

**Bendix Corp., Teterboro, N.J.**  
Evacuation valve  
[NASA-CASE-LAR-10061-1] c 15 N72-31483

**Bendix Research Labs., Southfield, Mich.**  
Image tube  
[NASA-CASE-GSC-11602-1] c 33 N74-21850

**Bionetics Corp., Hampton, Va.**  
Small conductive particle sensor  
[NASA-CASE-LAR-12552-1] c 35 N82-11431

**Boeing Aerospace Co., Houston, Tex.**  
Fluid sample collection and distribution system  
[NASA-CASE-MS-16841-1] c 34 N79-24285

**Method and automated apparatus for detecting coliform organisms**  
[NASA-CASE-MS-16777-1] c 51 N80-27067

**Boeing Aerospace Co., Seattle, Wash.**  
Method and apparatus for fabricating improved solar cell modules  
[NASA-CASE-NPO-14416-1] c 44 N81-14389

**Boeing Co., Cocoa Beach, Fla.**  
Positive contact resistance soldering unit  
[NASA-CASE-KSC-10242] c 15 N72-23497

**Variable resistance constant tension and lubrication device**  
[NASA-CASE-KSC-10723-1] c 37 N75-13265

**Boeing Co., Houston, Tex.**  
Method and apparatus for eliminating luminol interference material  
[NASA-CASE-MS-16260-1] c 51 N80-16714

**Boeing Co., Huntsville, Ala.**  
Hydrogen fire blink detector  
[NASA-CASE-MFS-15063] c 14 N72-25412

**Boreoscope with variable angle scope**  
[NASA-CASE-MFS-15182] c 14 N72-32452

**Guide for a typewriter**  
[NASA-CASE-MFS-15218-1] c 37 N77-19457

**Boeing Co., Pasadena, Tex.**  
Medical subject monitoring systems  
[NASA-CASE-MS-14180-1] c 52 N76-14757

**Boeing Co., Seattle, Wash.**  
Strain gage Patent Application  
[NASA-CASE-FRC-10053] c 14 N70-35587

**Method of inhibiting stress corrosion cracks in titanium alloys**  
Patent  
[NASA-CASE-NPO-10271] c 17 N71-16393

**Strain sensor for high temperatures**  
Patent  
[NASA-CASE-XNP-09205] c 14 N71-17657

**Forming tool for ribbon or wire**  
[NASA-CASE-XLA-05966] c 15 N72-12408

**Solar cell assembly test method**  
[NASA-CASE-NPO-10401] c 03 N72-20033

**Thermal compression bonding of interconnectors**  
[NASA-CASE-GSC-10303] c 15 N72-22487

**Extrusion can**  
[NASA-CASE-NPO-10812] c 15 N73-13464

**Radiation sensitive solid state switch**  
[NASA-CASE-NPO-10817-1] c 08 N73-30135

**Plasma cleaning device**  
[NASA-CASE-MFS-22906-1] c 75 N78-27913

**Calibrating pressure switch**  
[NASA-CASE-XMF-04494-1] c 33 N79-33392

**Boeing Commercial Airplane Co., Seattle, Wash.**  
Improved tire/wheel concept  
[NASA-CASE-LAR-11695-2] c 37 N80-18402

**Tire/wheel concept**  
[NASA-CASE-LAR-11695-2] c 37 N81-24443

**Fuselage structure using advanced technology fiber reinforced composites**  
[NASA-CASE-LAR-11688-1] c 24 N82-26384

**Slotted variable camber flap**  
[NASA-CASE-LAR-12541-1] c 05 N84-22551

**Borden, Inc., New York, N.Y.**  
Process of treating cellulosic membrane and alkaline with membrane separator  
[NASA-CASE-GSC-10019-1] c 44 N82-24641

**Separator for alkaline batteries and method of making same**  
[NASA-CASE-GSC-10350-1] c 44 N82-24642

**Separator for alkaline electric cells and method of making**  
[NASA-CASE-GSC-10017-1] c 44 N82-24643

**Separator for alkaline electric batteries and method of making**  
[NASA-CASE-GSC-10018-1] c 44 N82-24644

**Alkaline electrochemical cells and method of making**  
[NASA-CASE-GSC-10349-1] c 44 N82-24645

**Aqueous alkali metal hydroxide insoluble cellulose ether membrane**  
[NASA-CASE-XGS-05584-1] c 25 N32-29370

**Borg-Warner Corp., Chicago, Ill.**  
Data transfer system Patent  
[NASA-CASE-NPO-12107] c 08 N71-27255

**Brown and Root-Northrop, Houston, Tex.**  
Anti-fog composition  
[NASA-CASE-MS-13530-2] c 23 N75-14834

**Brown Engineering Co., Inc., Huntsville, Ala.**  
Air bearing Patent  
[NASA-CASE-XMF-01887] c 15 N71-10617

**Collapsible nozzle extension for rocket engines**  
Patent  
[NASA-CASE-MFS-11497] c 28 N71-16224

**Inspection gage for boss**  
Patent  
[NASA-CASE-XMF-04966] c 14 N71-17658

**Method of recording a gas flow pattern**  
Patent  
[NASA-CASE-MF-01779] c 12 N71-20815

**Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems**  
Patent  
[NASA-CASE-XMF-00684] c 21 N71-21688

**Vapor liquid separator Patent**  
[NASA-CASE-XMF-04042] c 15 N71-23023

**Thruster maintenance system Patent**  
[NASA-CASE-MFS-20325] c 28 N71-27095

**Inflatable transpiration cooled nozzle**  
[NASA-CASE-MFS-20619] c 28 N72-11708

## C

**California Computer Products, Inc., Anaheim.**  
Temperature regulation circuit Patent  
[NASA-CASE-XNP-02792] c 14 N71-28958

**California Inst. of Tech., Pasadena.**  
Altitude control for spacecraft Patent  
[NASA-CASE-XNP-02982] c 31 N70-41855

**Baseband signal combiner for large aperture antenna array**  
[NASA-CASE-NPO-14641-1] c 32 N81-29308

**Schottky barrier solar cell**  
[NASA-CASE-NPO-13689-2] c 44 N81-29525

**Interferometer**  
[NASA-CASE-NPO-14448-1] c 74 N81-29963

**Crude oil desulfurization**  
[NASA-CASE-NPO-14542-1] c 25 N82-23282

**Electronic system for high power load control**  
[NASA-CASE-NPO-15358-1] c 33 N83-27126

**Supercritical solvent coal extraction**  
[NASA-CASE-NPO-15210-1] c 25 N84-22709

**Absorbable-susceptor joining of ceramic surfaces**  
[NASA-CASE-NPO-15640-1] c 27 N84-22748

**Radiative cooler**  
[NASA-CASE-NPO-15465-1] c 34 N84-22903

**Method and apparatus for precision control of radiometer**  
[NASA-CASE-NPO-15398-1] c 35 N84-22931

**Spectrophone stabilized laser with line center offset frequency control**  
[NASA-CASE-NPO-15516-1] c 36 N84-22943

**Wind and solar powered turbine**  
[NASA-CASE-NPO-15496-1] c 44 N84-23018

**Acoustic rotation control**  
[NASA-CASE-NPO-15689-1] c 71 N84-23233

**Programmable scan/read circuitry for charge coupled device imaging detectors**  
[NASA-CASE-NPO-15345-1] c 74 N84-23247

**California Univ., Berkeley.**  
Adjustable mount for a trihedral mirror Patent  
[NASA-CASE-XNP-08907] c 23 N71-29123

**Infrared detectors**  
[NASA-CASE-LAR-10728-1] c 14 N73-12445

**Resistive anode image converter**  
[NASA-CASE-HQN-10878-1] c 33 N78-27473

**Low gravity phase separator**  
[NASA-CASE-MS-14773-1] c 35 N78-12390

**Automatic multiple-sample applicator and electrophoresis apparatus**  
[NASA-CASE-ARC-10991-1] c 25 N78-14104

**Process for preparing higher oxides of the alkali and alkaline earth metals**  
[NASA-CASE-ARC-10992-1] c 26 N78-32229

**Microelectrophoretic apparatus and process**  
[NASA-CASE-ARC-11121-1] c 25 N79-14169

**California Univ., Los Angeles.**  
Continuous plasma light source  
[NASA-CASE-XNP-04167-2] c 25 N72-24753

**Continuous plasma laser**  
[NASA-CASE-XNP-04167-3] c 36 N77-19416

**Catholic Univ. of America, Washington, D.C.**  
Electromagnetic wave energy converter  
[NASA-CASE-GSC-11394-1] c 09 N73-32109

**Chance Vought Corp., Dallas, Tex.**  
Coupling for linear shaped charge Patent  
[NASA-CASE-XLA-00189] c 33 N70-36846

**Spin forming tubular elbows Patent**  
[NASA-CASE-XMF-01083] c 15 N71-22723

**Single action separation mechanism Patent**  
[NASA-CASE-XLA-00188] c 15 N71-22874

**Christopher Newport Coll., Newport News, Va.**  
Photoelectrochemical cells including chalcogenophosphate photoelectrodes  
[NASA-CASE-LAR-12958-1] c 44 N84-23019

**Chrysler Corp., Detroit, Mich.**  
Ceramic insulation for radiant heating environments and method of preparing the same Patent  
[NASA-CASE-MFS-14253] c 33 N71-24858

**Constant temperature heat sink for calorimeters**  
Patent  
[NASA-CASE-XMF-04208] c 33 N71-29051

**Chrysler Corp., Huntsville, Ala.**  
Apparatus for ejection of an instrument cover  
[NASA-CASE-XMF-04132] c 15 N69-27502

# CORPORATE SOURCE

**Clemson Univ., S.C.**  
Method of forming dynamic membrane on stainless steel support  
[NASA-CASE-MSC-18172-1] c 26 N80-19237

**Collins Radio Co., Cedar Rapids, Iowa.**  
Power responsive overload sensing circuit Patent  
[NASA-CASE-GSC-10667-1] c 10 N71-33129  
Chassis unit insert tightening-extract device  
[NASA-CASE-XMS-01077-1] c 37 N79-33467

**Collins Radio Co., Dallas, Tex.**  
Signal path series step biased multidevice high efficiency amplifier Patent  
[NASA-CASE-GSC-10668-1] c 07 N71-28430  
Heat conductive resiliently compressible structure for space electronics package modules Patent  
[NASA-CASE-MSC-12389] c 33 N71-29052  
Infinite range electronics gain control circuit  
[NASA-CASE-GSC-10788-1] c 10 N72-28241

**Colorado State Univ., Fort Collins.**  
Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field  
[NASA-CASE-LEW-12465-1] c 25 N78-25148

**Comprehensive Designers, Inc., Sherman Oaks, Calif.**  
Vehicle for use in planetary exploration  
[NASA-CASE-NPO-11366] c 11 N73-26238

**Computer Control Co., Inc., Framingham, Mass.**  
Test fixture for pellet-like electrical elements  
[NASA-CASE-XNP-06032] c 09 N69-21926  
Support structure for irradiated elements Patent  
[NASA-CASE-XNP-06031] c 15 N71-15606  
Counter Patent  
[NASA-CASE-XNP-06234] c 10 N71-27137

**Computer Sciences Corp., Falls Church, Va.**  
Oceanic wave measurement system  
[NASA-CASE-MFS-23862-1] c 48 N80-18667

**Computer Sciences Corp., Mountain View, Calif.**  
Thumb actuated two axis controller  
[NASA-CASE-ARC-11372-1] c 08 N83-12098

**Conrac Corp., Pasadena, Calif.**  
Penetrating radiation system for detecting the amount of liquid in a tank Patent  
[NASA-CASE-MSC-12280] c 27 N71-16348

**Consolidated Controls Corp., El Segundo, Calif.**  
Low temperature latching solenoid  
[NASA-CASE-MSC-18106-1] c 33 N82-11357

**Cornell Univ., Ithaca, N.Y.**  
Flux sensing device using a tubular core with toroidal gating coil and solenoidal output coil wound thereon Patent  
[NASA-CASE-XGS-01881] c 09 N70-40123

**Crane Co., Burbank, Calif.**  
Hydraulic transformer Patent  
[NASA-CASE-MFS-20830] c 15 N71-30028

**Curtiss-Wright Corp., Wood-Ridge, N.J.**  
Gas turbine combustion apparatus Patent  
[NASA-CASE-XLE-103477-1] c 28 N71-20330

**Cutler-Hammer, Inc., Melville, N.Y.**  
Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28348

# D

**Delaware Univ., Newark.**  
High field CoS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088

**Denver Univ., Colo.**  
Metal shearing energy absorber  
[NASA-CASE-HQN-10638-1] c 15 N73-30480

**Department of Transportation, Cambridge, Mass.**  
Optical noise suppression device and method  
[NASA-CASE-MSC-12640-1] c 74 N76-31988

**Dorne and Mergold, Inc., Bohemia, N.Y.**  
Nose cone mounted heat resistant antenna Patent  
[NASA-CASE-XMS-04312] c 07 N71-22984

**Douglas Aircraft Co., Inc., Santa Monica, Calif.**  
Recoverable single stage spacecraft booster Patent  
[NASA-CASE-XMF-01873] c 31 N70-41588  
Switching circuit employing regeneratively connected complementary transistors Patent  
[NASA-CASE-XNP-02654] c 10 N70-42032  
Split nut separation system Patent  
[NASA-CASE-XNP-06914] c 15 N71-21489  
Artificial gravity spin deployment system Patent  
[NASA-CASE-XNP-02595] c 31 N71-21881  
Portable superclean air column device Patent  
[NASA-CASE-XMF-03212] c 15 N71-22721  
Energy absorption device Patent  
[NASA-CASE-XNP-01848] c 15 N71-28959  
Collapsible pistons  
[NASA-CASE-MSC-13789-1] c 11 N73-32152

**Duke Univ., Durham, N.C.**  
Regulated do-to-dc converter for voltage step-up or step-down with input-output isolation  
[NASA-CASE-HQN-10792-1] c 33 N74-11049

**Dumont Electron Tubes, Clifton, N.J.**  
High contrast cathode ray tube  
[NASA-CASE-ERC-10488] c 09 N72-20206

**Dynatherm Corp., Cockeysville, Md.**  
Heat pipe thermal switch  
[NASA-CASE-GSC-12812-1] c 34 N83-35307

# E

**Echo Science Corp., Mountain View, Calif.**  
Dynamic capacitor having a peripherally driven element and system incorporating the same  
[NASA-CASE-XNP-02899-1] c 33 N79-21265

**Eitel-McCullough, Inc., San Carlos, Calif.**  
Method of forming ceramic to metal seal Patent  
[NASA-CASE-XNP-01263-2] c 15 N71-26312

**Electrac, Inc., Anaheim, Calif.**  
Optimum predetection diversity receiving system Patent  
[NASA-CASE-XGS-00740] c 07 N71-23098

**Electric Storage Battery Co., Raleigh, N.C.**  
Electric battery and method for operating same Patent  
[NASA-CASE-XGS-01874] c 03 N71-29129  
Storage battery comprising negative plates of a wedge shaped configuration  
[NASA-CASE-NPO-11806-1] c 44 N74-18693

**Electric Storage Battery Co., Yardley, Pa.**  
Electric storage battery  
[NASA-CASE-NPO-11021] c 03 N72-20032

**Electro-Optical Systems, Inc., Pasadena, Calif.**  
Focussing system for an ion source having apertured electrodes Patent  
[NASA-CASE-XNP-03332] c 09 N71-10618  
Electrolytically regenerative hydrogen-oxygen fuel cell Patent  
[NASA-CASE-XLE-04526] c 03 N71-11052  
Method of producing refractory bodies having controlled porosity Patent  
[NASA-CASE-LEW-10393-1] c 17 N71-15468  
Soil particles separator, collector and viewer Patent  
[NASA-CASE-XNP-08770] c 15 N71-20440  
Particle detection apparatus including a ballistic pendulum Patent  
[NASA-CASE-XMS-04201] c 14 N71-22990  
Polarity sensitive circuit Patent  
[NASA-CASE-XNP-00952] c 10 N71-23271  
Ion engine casing construction and method of making same Patent  
[NASA-CASE-XNP-06942] c 28 N71-23293  
Material handling device Patent  
[NASA-CASE-XNP-08770-3] c 11 N71-27036  
Screen particle separator  
[NASA-CASE-XNP-08770-2] c 15 N72-22483

**Electronic Image Systems Corp., Cambridge, Mass.**  
Drying apparatus for photographic sheet material  
[NASA-CASE-GSC-11074-1] c 14 N73-28489

**Essex Corp., Huntsville, Ala.**  
Satellite retrieval system  
[NASA-CASE-MFS-25403-1] c 18 N83-29303

**Ewen Knight Corp., East Natick, Mass.**  
Method and means for providing an absolute power measurement capability Patent  
[NASA-CASE-ERC-11020] c 14 N71-26774

# F

**Fairchild Hiller Corp., Germantown, Md.**  
Two axis fluxgate magnetometer Patent  
[NASA-CASE-GSC-10441-1] c 14 N71-27325  
Space simulation and radiative property testing system and method Patent  
[NASA-CASE-MFS-20096] c 14 N71-30026  
Thermal control system for a spacecraft modular housing  
[NASA-CASE-GSC-11018-1] c 31 N73-30829

**Fairchild Republic Co., Farmingdale, N.Y.**  
Surface conforming thermal/pressure seal  
[NASA-CASE-MSC-18422-1] c 37 N82-18408

**Faraday Labs., Inc., La Jolla, Calif.**  
Method for attaching a fused-quartz mirror to a conductive metal substrate  
[NASA-CASE-MFS-23405-1] c 26 N77-29260

**Federal-Mogul Corp., Los Alamitos, Calif.**  
Hydraulic casting of liquid polymers Patent  
[NASA-CASE-XNP-07659] c 06 N71-22975

**Florida Univ., Gainesville.**  
Safety flywheel  
[NASA-CASE-HQN-10888-1] c 44 N79-14527

# General Electric Co., Cincinnati, Ohio.

**FMC Corp., New York.**  
Decomposition unit Patent  
[NASA-CASE-XMS-00583] c 28 N70-38504

**Foothill Coll., Los Altos Hills, Calif.**  
Electrical conductivity cell and method for fabricating the same  
[NASA-CASE-ARC-10810-1] c 33 N76-19339

**Ford Motor Co., Dearborn, Mich.**  
Omnidirectional acceleration device Patent  
[NASA-CASE-HQN-10780] c 14 N71-30265

**Garrett Corp., Los Angeles, Calif.**  
Relief valve  
[NASA-CASE-XMS-05894-1] c 15 N69-21924  
Portable environmental control system Patent  
[NASA-CASE-XMS-09632-1] c 05 N71-11203  
Dual latching solenoid valve Patent  
[NASA-CASE-XMS-05890] c 09 N71-23191  
Water management system and an electrolytic cell therefor Patent  
[NASA-CASE-MSC-10860-1] c 03 N71-24718  
Low cycle fatigue testing machine  
[NASA-CASE-LAR-10270-1] c 32 N72-25877  
Process for separation of dissolved hydrogen from water by use of palladium and process for coating palladium with palladium black  
[NASA-CASE-MSC-13335-1] c 06 N72-31140  
Flexible joint for pressurizable garment  
[NASA-CASE-MSC-11072] c 54 N74-32546  
Gas compression apparatus  
[NASA-CASE-MSC-14757-1] c 35 N78-10428  
Wind tunnel  
[NASA-CASE-LAR-10135-1] c 09 N79-21083  
Water separator  
[NASA-CASE-XMS-01295-1] c 37 N79-21345

**Garrett Corp., Torrance, Calif.**  
Adaptive reference voltage generator for firing angle control of line-commutated inverters  
[NASA-CASE-MFS-25215-1] c 33 N83-31953

**GCA Corp., Bedford, Mass.**  
Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent  
[NASA-CASE-LAR-10180-1] c 06 N71-13481

**General Dynamics/Astronautics, San Diego, Calif.**  
Determination of spot weld quality Patent  
[NASA-CASE-XNP-02588] c 15 N71-18613  
Pressure transducer calibrator Patent  
[NASA-CASE-XNP-01660] c 14 N71-23036  
Plating nickel on aluminum castings Patent  
[NASA-CASE-XNP-04148] c 17 N71-24830

**General Dynamics/Convair, San Diego, Calif.**  
Signal generator  
[NASA-CASE-XNP-05612] c 09 N69-21488  
Separation nut Patent  
[NASA-CASE-XGS-01971] c 15 N71-15922  
Zero gravity separator Patent  
[NASA-CASE-XLE-00586] c 15 N71-15968  
Catalyst cartridge for carbon dioxide reduction unit  
[NASA-CASE-LAR-10551-1] c 25 N74-12813  
Heat exchanger  
[NASA-CASE-MFS-22991-1] c 34 N77-10463

**General Dynamics Corp., San Diego, Calif.**  
Light radiation direction indicator with a baffle of two parallel grids  
[NASA-CASE-XNP-03930] c 14 N69-24331  
Method and apparatus for attaching physiological monitoring electrodes Patent  
[NASA-CASE-XFR-07658-1] c 05 N71-26293  
Driving lamps by induction  
[NASA-CASE-MFS-21214-1] c 09 N73-30181

**General Electric Co., Cincinnati, Ohio.**  
Dual output variable pitch turbofan actuation system  
[NASA-CASE-LEW-12419-1] c 07 N77-14025  
Reverse pitch fan with divided splitter  
[NASA-CASE-LEW-12760-1] c 07 N77-17059  
Leading edge protection for composite blades  
[NASA-CASE-LEW-12550-1] c 24 N77-18170  
Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12830-1] c 07 N77-23106  
Blade retainer assembly  
[NASA-CASE-LEW-12808-1] c 07 N77-27118  
Platform for a swing root turbomachinery blade  
[NASA-CASE-LEW-12312-1] c 07 N77-32148  
Deformable bearing seat  
[NASA-CASE-LEW-12527-1] c 37 N77-32500  
Bearing seat usable in a gas turbine engine  
[NASA-CASE-LEW-12477-1] c 37 N77-32501  
Oil cooling system for a gas turbine engine  
[NASA-CASE-LEW-12321-1] c 37 N78-10487  
Impact absorbing blade mounts for variable pitch blades  
[NASA-CASE-LEW-12313-1] c 37 N78-10468





Variable thrust nozzle for quiet turbofan engine and method of operating same  
[NASA-CASE-LEW-12317-1] c 07 N78-17055  
Gas turbine engine with convertible accessories  
[NASA-CASE-LEW-12390-1] c 07 N78-17056  
Variable cycle gas turbine engines  
[NASA-CASE-LEW-12916-1] c 37 N78-17384  
Gas turbine engine with recirculating bleed  
[NASA-CASE-LEW-12452-1] c 07 N78-25089  
Redundant disc  
[NASA-CASE-LEW-12496-1] c 07 N78-33101  
Fuel delivery system including heat exchanger means  
[NASA-CASE-LEW-12783-1] c 37 N78-11403  
Integrated gas turbine engine-nacelle  
[NASA-CASE-LEW-12389-3] c 07 N79-14096  
Variable area exhaust nozzle  
[NASA-CASE-LEW-12378-1] c 07 N79-14097  
Sound-suppressing structure with thermal relief  
[NASA-CASE-LEW-12658-1] c 71 N79-14871  
Method and apparatus for rapid thrust increases in a turbofan engine  
[NASA-CASE-LEW-12971-1] c 07 N80-18039  
Curved centerline air intake for a gas turbine engine  
[NASA-CASE-LEW-13201-1] c 07 N81-14999  
Apparatus for sensor failure detection and correction in a gas turbine engine control system  
[NASA-CASE-LEW-12907-2] c 07 N81-19115  
Integrated control system for a gas turbine engine  
[NASA-CASE-LEW-12584-2] c 07 N81-19116  
Thrust reverser for a long duct fan engine  
[NASA-CASE-LEW-13199-1] c 07 N82-26293  
Control means for a gas turbine engine  
[NASA-CASE-LEW-14586-1] c 07 N83-31803  
Apparatus for improving the fuel efficiency of a gas turbine engine  
[NASA-CASE-LEW-13142-1] c 07 N83-38029  
Tip cap for a rotor blade  
[NASA-CASE-LEW-13654-1] c 07 N84-22560  
Air modulation apparatus  
[NASA-CASE-LEW-13524-1] c 07 N84-33410  
General Electric Co., Cleveland, Ohio.  
Variable mixer propulsion cycle  
[NASA-CASE-LEW-12917-1] c 07 N78-18067  
General Electric Co., Philadelphia, Pa.  
Catalyst for growth of boron carbide single crystal whiskers  
[NASA-CASE-XHQ-03903] c 15 N69-21922  
Didymium hydrate additive to nickel hydroxide electrodes  
[NASA-CASE-XGS-03505] c 03 N71-10608  
Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent  
[NASA-CASE-XGS-02011] c 15 N71-20739  
Automatic control of liquid cooling garment by cutaneous and external auditory meatus temperatures  
[NASA-CASE-MSC-13917-1] c 05 N72-15098  
Method for measuring cutaneous sensory perception  
[NASA-CASE-MSC-13809-1] c 05 N72-25122  
Reaction tester  
[NASA-CASE-MSC-13604-1] c 05 N73-13114  
Air conditioned suit  
[NASA-CASE-LAR-10076-1] c 05 N73-20137  
Compton scatter attenuation gamma ray spectrometer  
[NASA-CASE-MFS-21441-1] c 14 N73-30392  
Inverter ratio failure detector  
[NASA-CASE-NPO-13180-1] c 35 N74-18090  
Electrophoretic sample insertion  
[NASA-CASE-MFS-21395-1] c 25 N74-26948  
Apparatus for conducting flow electrophoresis in the substantial absence of gravity  
[NASA-CASE-MFS-21394-1] c 34 N74-27744  
Multiparameter vision testing apparatus  
[NASA-CASE-MSC-13601-2] c 54 N75-27759  
Automatic bioassay sampling  
[NASA-CASE-MSC-14640-1] c 54 N76-14804  
Solar cell module  
[NASA-CASE-NPO-14467-1] c 44 N79-31753  
Voltage feed through apparatus having reduced partial discharge  
[NASA-CASE-GSC-12347-1] c 33 N80-18286  
General Electric Co., Pleasanton, Calif.  
Method of making a cermet Patent  
[NASA-CASE-LEW-10219-1] c 18 N71-28729  
General Electric Co., Schenectady, N. Y.  
Superconductive accelerometer Patent  
[NASA-CASE-XMF-01099] c 14 N71-15969  
Remote manipulator system  
[NASA-CASE-MFS-22022-1] c 37 N76-15460  
Automatic transponder  
[NASA-CASE-GSC-12075-1] c 32 N77-31350  
Directionally solidified eutectic gamma plus beta nickel-base superalloys  
[NASA-CASE-LEW-12906-1] c 26 N77-32279

General Electric Co., Utica, N. Y.  
Method of determining bond quality of power transistors attached to substrates  
[NASA-CASE-MFS-21831-1] c 37 N75-26372  
General Motors Corp., Detroit, Mich.  
Hermetic sealed vibration damper Patent  
[NASA-CASE-MSC-10959] c 15 N71-26243  
General Motors Corp., Milwaukee, Wis.  
Adjustable tension wire guide Patent  
[NASA-CASE-XMS-02383] c 15 N71-15918  
General Motors Corp., Santa Barbara, Calif.  
Resilient wheel Patent  
[NASA-CASE-MFS-13929] c 15 N71-27091  
General Procton, Inc., Little Falls, N.J.  
Reversible current control apparatus Patent  
[NASA-CASE-XLA-09371] c 10 N71-18724  
General Procton, Inc., Sunnyvale, Calif.  
Broadband video process with very high input impedance  
[NASA-CASE-NPO-10199] c 09 N72-17156  
General Procton Systems, Inc., Little Falls, N.J.  
Fluidic-thermochemical display device Patent  
[NASA-CASE-ERC-10031] c 12 N71-18603  
General Technologies Corp., Reston, Va.  
Method of making reinforced composite structure  
[NASA-CASE-LEW-12619-1] c 24 N77-19171  
Goodyear Corp. of America, Bodford, Mass.  
Inflation system for balloon type satellites Patent  
[NASA-CASE-XGS-03351] c 31 N71-18081  
Bakeable McLeod gauge  
[NASA-CASE-XGS-01293-1] c 35 N79-33450  
Goodyear Corp. of America, Boston, Mass.  
Ionospheric battery Patent  
[NASA-CASE-XGS-01593] c 03 N70-35408  
Goorgo Washington Univ., Washington, D.C.  
Bacteria detection instrument and method  
[NASA-CASE-GSC-11533-1] c 14 N73-13435  
Arterial pulse wave pressure transducer  
[NASA-CASE-GSC-11531-1] c 52 N74-27566  
Gionini Scientific Corp., Santa Ana, Calif.  
Electric arc light source having undercut recessed anode  
[NASA-CASE-ARC-10266-1] c 33 N75-29318  
Combination automatic-starting electrical plasma torch and gas shut-off valve  
[NASA-CASE-XLE-10717] c 37 N75-29426  
Glor, Inc., Waltham, Mass.  
Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-1] c 33 N80-20487  
Catalyst surfaces for the chromous/chromic redox couple  
[NASA-CASE-LEW-13148-2] c 44 N81-29524  
Globe-Union, Inc., Milwaukee, Wis.  
Method of coating solar cell with borosilicate glass and resultant product  
[NASA-CASE-GSC-11514-1] c 03 N72-24037  
Goodyear Aerospace Corp., Akron, Ohio.  
Foldable solar concentrator Patent  
[NASA-CASE-XLA-04622] c 03 N70-41580  
Method of making a filament-wound container Patent  
[NASA-CASE-XLE-03803-2] c 15 N71-17651  
Filament wound container Patent  
[NASA-CASE-XLE-03803] c 15 N71-23818  
Panelized high performance multilayer insulation Patent  
[NASA-CASE-MFS-14023] c 33 N71-25351  
Thermally activated foaming compositions Patent  
[NASA-CASE-LAR-10373-1] c 18 N71-26155  
Compression test assembly  
[NASA-CASE-LAR-10440-1] c 14 N73-32323  
Deployable flexible tunnel  
[NASA-CASE-MFS-22636-1] c 37 N78-22540  
Graco (W. R.) and Co., Clarksville, Md.  
Metal containing polymers from cyclic tetrameric phenylphosphonitrimides Patent  
[NASA-CASE-HCN-10364] c 08 N71-27383  
Grumman Aerospace Corp., Bethpage, N.Y.  
Multi-leg heat pipe evaporator  
[NASA-CASE-MSC-20812-1] c 34 N84-32748  
Improved monogroove heat pipe design: Insulated liquid channel with bridging wick  
[NASA-CASE-MSC-20497-1] c 34 N84-34692  
Grumman Aircraft Engineering Corp., Bethpage, N. Y.  
Sealed cabinetry Patent  
[NASA-CASE-MSC-12168-1] c 09 N71-18600  
Out of tolerance warning alarm system for plurality of monitored circuits Patent  
[NASA-CASE-XMS-10884-1] c 10 N71-19417  
Guil General Atomic, San Diego, Calif.  
Waveform simulator Patent  
[NASA-CASE-NPO-10251] c 10 N71-27385  
Guil Industries, Inc., Albuquerque, N.M.  
Analog-to-digital converter  
[NASA-CASE-MSC-13110-1] c 08 N72-22163

Hamilton Standard, Hartford, Conn.  
Slow opening valve  
[NASA-CASE-MSC-20112-1] c 37 N82-28641  
Hamilton Standard, Windsor Locks, Conn.  
Venting device for pressurized space suit helmet Patent  
[NASA-CASE-XMS-09652-1] c 05 N71-26333  
Regenerable device for scrubbing breathable air of CO<sub>2</sub> and moisture without special heat exchanger equipment  
[NASA-CASE-MSC-14771-1] c 54 N77-32722  
Cell and method for electrolysis of water and anode  
[NASA-CASE-MSC-16394-1] c 28 N81-24280  
Hamilton Standard Div., United Aircraft Corp., Windsor Locks, Conn.  
Condensate removal device for heat exchanger  
[NASA-CASE-MSC-14143-1] c 77 N75-20139  
Harrio Corp., Melbourne, Fla.  
Adaptive polarization separation  
[NASA-CASE-LAR-12196-1] c 33 N81-26358  
Telescoping columns  
[NASA-CASE-LAR-12195-1] c 31 N81-27324  
Hayco International Corp., Birmingham, Ala.  
Space craft soft landing system Patent  
[NASA-CASE-XMF-02108] c 31 N70-38845  
Device for preventing high voltage arcing in electron beam welding Patent  
[NASA-CASE-XMF-08522] c 15 N71-19486  
Hayco International Corp., Huntsville, Ala.  
Method and apparatus for cryogenic wire stripping Patent  
[NASA-CASE-MFS-10340] c 15 N71-17628  
Self-balancing strain gage transducer Patent  
[NASA-CASE-MFS-12827] c 14 N71-17656  
Automatic closed circuit television arc guidance control Patent  
[NASA-CASE-MFS-13046] c 07 N71-19433  
Hazleton Lab., Falls Church, Va.  
Use of the enzyme hexokinase for the reduction of inherent light levels  
[NASA-CASE-XGS-05533] c 04 N69-27487  
Light detection instrument Patent  
[NASA-CASE-XGS-05534] c 23 N71-16355  
Lyophilized reaction mixtures Patent  
[NASA-CASE-XGS-05532] c 06 N71-17705  
Firefly pump-metering system  
[NASA-CASE-GSC-10218-1] c 15 N72-21485  
Hercules, Inc., Wilmington, Del.  
Method of repairing discontinuity in fiberglass structures  
[NASA-CASE-LAR-10416-1] c 24 N74-30001  
Hoffman Electronics Corp., El Monte, Calif.  
Method for producing a solar cell having an integral protective covering  
[NASA-CASE-XGS-04531] c 03 N69-24267  
Honeywell, Inc., Hopkinton, Minn.  
Frequency control network for a current feedback oscillator Patent  
[NASA-CASE-GSC-10041-1] c 10 N71-19418  
Honeywell, Inc., Minneapolis, Minn.  
Bus voltage compensation circuit for controlling direct current motor  
[NASA-CASE-XMS-04215-1] c 09 N69-39987  
Apparatus for overcurrent protection of a push-pull amplifier Patent  
[NASA-CASE-MSC-12033-1] c 09 N71-13531  
Static inverter Patent  
[NASA-CASE-XGS-05289] c 09 N71-19470  
High impedance measuring apparatus Patent  
[NASA-CASE-XMS-08589-1] c 09 N71-20569  
Clamping assembly for inertial components Patent  
[NASA-CASE-XMS-02184] c 15 N71-20813  
Piezoelectric pump Patent  
[NASA-CASE-XNP-05429] c 26 N71-21824  
Controllers Patent  
[NASA-CASE-XMS-07487] c 15 N71-23255  
Convoluting device for forming convolutions and the like Patent  
[NASA-CASE-XNP-05297] c 15 N71-23811  
Failure sensing and protection circuit for converter networks Patent  
[NASA-CASE-GSC-10114-1] c 10 N71-27386  
Voice operated controller Patent  
[NASA-CASE-XLA-04063] c 31 N71-33160  
Load current sensor for a series pulse width modulated power supply  
[NASA-CASE-GSC-10656-1] c 09 N72-25249  
Radiant source tracker independent of nonconstant irradiance  
[NASA-CASE-NPO-11686] c 14 N73-25462  
Optical instruments  
[NASA-CASE-MSC-14096-1] c 74 N74-15095  
Method of forming shrink-fit compression seal  
[NASA-CASE-LAR-11563-1] c 37 N77-23482

**Honeywell, Inc., St. Petersburg, Fla.**  
Reconfiguring redundancy management  
[NASA-CASE-MSC-18498-1] c 60 N82-28013

**Houston Univ., Tex.**  
Analysis of volatile organic compounds  
[NASA-CASE-MSC-14428-1] c 23 N77-17181

**Howard Univ., Washington, D. C.**  
Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-1] c 54 N76-22814  
Locking mechanism for orthopedic braces  
[NASA-CASE-GSC-12082-2] c 52 N81-25681  
Cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer  
[NASA-CASE-GSC-12081-2] c 52 N82-22875  
Navigation system and method  
[NASA-CASE-GSC-12508-1] c 04 N84-22548

**Hughes Aircraft Co., Culver City, Calif.**  
Varactor high level mixer  
[NASA-CASE-XGS-02171] c 09 N69-24324  
Thermally operated valve Patent  
[NASA-CASE-XLE-00815] c 15 N70-35407  
Thrust dynamometer Patent  
[NASA-CASE-XLE-00702] c 14 N70-40203  
Solid state chemical source for ammonia beam maser Patent  
[NASA-CASE-XGS-01504] c 16 N70-41578  
Canopus detector including automotive gain control of photomultiplier tube Patent  
[NASA-CASE-XNP-03914] c 21 N71-10771  
Horn feed having overlapping apertures Patent  
[NASA-CASE-GSC-10452] c 07 N71-12398  
Deflective rod switch with elastic support and sealing means Patent  
[NASA-CASE-XNP-09808] c 09 N71-12518  
Guidance and maneuver analyzer Patent  
[NASA-CASE-XNP-09572] c 14 N71-15621  
Method of making screen by casting Patent  
[NASA-CASE-XLE-00953] c 15 N71-15968  
Fluid flow control valve Patent  
[NASA-CASE-XLE-00703] c 15 N71-15967  
Low noise single aperture multimode monopulse antenna feed system Patent  
[NASA-CASE-XNP-01735] c 07 N71-22750  
Multilayer porous ionizer Patent  
[NASA-CASE-XNP-04338] c 17 N71-23048  
Construction and method of arranging a plurality of ion engines to form a cluster Patent  
[NASA-CASE-XNP-02923] c 28 N71-23081  
Method for fiberizing ceramic materials Patent  
[NASA-CASE-XNP-00597] c 18 N71-23088  
Inorganic thermal control pigment Patent  
[NASA-CASE-XNP-02139] c 18 N71-24184  
Triaxial antenna Patent  
[NASA-CASE-XGS-02290] c 07 N71-28809  
Variable frequency oscillator with temperature compensation Patent  
[NASA-CASE-XNP-03916] c 09 N71-28810  
High efficiency ionizer assembly Patent  
[NASA-CASE-XNP-01954] c 28 N71-28850  
Apparatus for changing the orientation and velocity of a spinning body traversing a path Patent  
[NASA-CASE-HON-00936] c 31 N71-29050  
Fabrication of controlled-porosity metals Patent  
[NASA-CASE-XNP-04339] c 17 N71-29137  
Ion thruster  
[NASA-CASE-LEW-10770-1] c 28 N72-22770  
Refractory porcelain enamel passive control coating for high temperature alloys  
[NASA-CASE-MFS-22324-1] c 27 N75-27180

**Hughes Aircraft Co., Los Angeles, Calif.**  
Power control circuit  
[NASA-CASE-XNP-02713] c 10 N69-39888  
Thermal switch Patent  
[NASA-CASE-XNP-00483] c 33 N70-36847  
Double optic system for ion engine Patent  
[NASA-CASE-XNP-02839] c 28 N70-41922  
Sample collecting impact bit Patent  
[NASA-CASE-XNP-01412] c 15 N70-42034  
Bootstrap unloader Patent  
[NASA-CASE-XNP-09768] c 09 N71-12516  
Difference circuit Patent  
[NASA-CASE-XNP-08274] c 10 N71-13537  
Gas regulator Patent  
[NASA-CASE-NPO-10298] c 12 N71-17661  
A dc-coupled noninverting one-shot Patent  
[NASA-CASE-XNP-09450] c 10 N71-18723  
Phase demodulation system with two phase locked loops Patent  
[NASA-CASE-XNP-00777] c 10 N71-19469  
High voltage transistor circuit Patent  
[NASA-CASE-XNP-06937] c 09 N71-19518  
Drift compensation circuit for analog to digital converter Patent  
[NASA-CASE-XNP-04780] c 08 N71-19687

System for monitoring the presence of neutrals in a stream of ions Patent  
[NASA-CASE-XNP-02592] c 24 N71-20518  
Broadband frequency discriminator Patent  
[NASA-CASE-NPO-10098] c 07 N71-24583  
Flexible, repairable, portable material for electrical connectors Patent  
[NASA-CASE-XGS-05180] c 18 N71-25681  
Phase multiplying electronic scanning system Patent  
[NASA-CASE-NPO-10302] c 10 N71-26142  
Narrow bandwidth video Patent  
[NASA-CASE-XMS-06740-1] c 07 N71-26579  
Solar panel fabrication Patent  
[NASA-CASE-XNP-03413] c 03 N71-26728  
Method for removing oxygen impurities from cesium Patent  
[NASA-CASE-XNP-04262-2] c 17 N71-26773  
Virtual wall slot circularly polarized planar array antenna  
[NASA-CASE-NPO-10301] c 07 N72-11148  
Conical reflector antenna  
[NASA-CASE-NPO-10303] c 07 N72-22127  
Injector for use in high voltage isolators for liquid feed lines  
[NASA-CASE-NPO-11377] c 15 N73-27406  
High efficiency multifrequency feed  
[NASA-CASE-GSC-11909] c 32 N74-20883  
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids  
[NASA-CASE-MFS-22411-1] c 37 N74-21058  
Method and apparatus for optically monitoring the angular position of a rotating mirror  
[NASA-CASE-GSC-11353-1] c 74 N74-21304  
Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942  
Opto-mechanical subsystem with temperature compensation through isothermal design  
[NASA-CASE-GSC-12059-1] c 35 N77-27366  
Wide power range microwave feedback controller  
[NASA-CASE-GSC-12148-1] c 33 N78-32340  
System for synchronizing synthesizers of communication systems  
[NASA-CASE-GSC-12148-1] c 32 N79-20296  
Pseudonoise code tracking loop  
[NASA-CASE-MSC-18035-1] c 32 N81-15179  
Apparatus and method for determining the position of a radiant energy source  
[NASA-CASE-GSC-12147-1] c 32 N81-27341

**Hughes Helicopters, Culver City, Calif.**  
Liquid crystal light valve structures  
[NASA-CASE-MSC-20036-1] c 76 N84-22457

**Hughes Research Labs., Malibu, Calif.**  
Thrust dynamometer Patent  
[NASA-CASE-XLE-05260] c 14 N71-20429

**ITT Research Inst., Chicago, Ill.**  
Spectral method for monitoring atmospheric contamination of inert-gas welding shields Patent  
[NASA-CASE-XMF-02039] c 15 N71-15871  
Lightweight refractory insulation and method of preparing the same Patent  
[NASA-CASE-XMF-05279] c 18 N71-16124  
Stabilized zinc oxide coating compositions Patent  
[NASA-CASE-XMF-07770-2] c 18 N71-26772  
Synthesis of zinc titanate pigment and coatings containing the same  
[NASA-CASE-MFS-13532] c 18 N72-17532  
Junction range finder  
[NASA-CASE-KSC-10108] c 14 N73-25461  
Method of preparing zinc orthotitanate pigment  
[NASA-CASE-MFS-23345-1] c 27 N77-30237

**ILC Technology, Inc., Sunnyvale, Calif.**  
Direct current ballast circuit for metal halide lamp  
[NASA-CASE-MSC-18407-1] c 33 N82-24427

**Image Information, Inc., Danbury, Conn.**  
Recorder/processor apparatus  
[NASA-CASE-GSC-11553-1] c 35 N74-15831

**Inca Engineering Corp., San Gabriel, Calif.**  
Apparatus for establishing flow of a fluid mass having a known velocity  
[NASA-CASE-MFS-21424-1] c 34 N74-27730

**Institute for Research, Inc., Houston, Tex.**  
Method of making a perspiration resistant biopotential electrode  
[NASA-CASE-MSC-80153-2] c 05 N72-25120

**Institute of Research and Instrumentation, Houston, Tex.**  
Pressed disc type sensing electrodes with ion-screening means Patent  
[NASA-CASE-XMS-04212-1] c 05 N71-12348

**International Business Machines Corp., Hopewell Junction, N. Y.**  
Growth of silicon carbide crystals on a seed while pulling silicon crystals from a melt  
[NASA-CASE-NPO-13969-1] c 76 N79-23798

**International Business Machines Corp., New York.**  
Electrical connector pin with wiping action  
[NASA-CASE-XMF-04238] c 09 N69-39734  
Tool attachment for spreading loose elements away from work Patent  
[NASA-CASE-XMF-02107] c 15 N71-10809  
Redundant memory organization Patent  
[NASA-CASE-GSC-10564] c 10 N71-29135

**International Business Machines Corp., Poughkeepsie, N. Y.**  
Method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width  
[NASA-CASE-NPO-14295-1] c 76 N80-32245

**International Harvester Co., San Diego, Calif.**  
Silicide coatings for refractory metals Patent  
[NASA-CASE-XLE-10910] c 18 N71-29040

**International Laser Systems, Inc., Orlando, Fla.**  
Active lamp pulse driver circuit  
[NASA-CASE-GSC-12568-1] c 33 N83-34189  
Laser Resonator  
[NASA-CASE-GSC-12565-1] c 36 N84-14509

**International Latex Corp., Dover, Del.**  
Space suit  
[NASA-CASE-MSC-12609-1] c 05 N73-32012

**Isomet Corp., Palisades Park, N.J.**  
Metabolic rate meter and method  
[NASA-CASE-MSC-12239-1] c 52 N79-21750

**ITT Corp., Nutley, N.J.**  
Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent  
[NASA-CASE-GSC-10373-1] c 07 N71-19773  
Tracking receiver Patent  
[NASA-CASE-XGS-08678] c 10 N71-21473  
Satellite interface synchronization system  
[NASA-CASE-GSC-10390-1] c 07 N72-11149

## J

**James and Associates, Lancaster, Calif.**  
System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation  
[NASA-CASE-FRC-11005-1] c 06 N82-16075

**Jet Propulsion Lab., California Inst. of Tech., Pasadena.**  
Pressure variable capacitor  
[NASA-CASE-XNP-09752] c 14 N69-21541  
Rock drill for recovering samples  
[NASA-CASE-XNP-07478] c 14 N69-21823  
Data compression system  
[NASA-CASE-XNP-09785] c 08 N69-21826  
Magnetohydrodynamic induction machine  
[NASA-CASE-XNP-07481] c 25 N69-21829  
Electromechanical actuator  
[NASA-CASE-XNP-05975] c 15 N69-23185  
Refrigeration apparatus  
[NASA-CASE-NPO-10309] c 15 N69-23190  
Direct radiation cooling of the collector of linear beam tubes  
[NASA-CASE-XNP-09227] c 15 N69-24319  
Excitation and detection circuitry for a flux responsive magnetic head  
[NASA-CASE-XNP-04183] c 09 N69-24329  
Telemetry word forming unit  
[NASA-CASE-XNP-08225] c 09 N69-24333  
Solid state switch  
[NASA-CASE-XNP-09228] c 09 N69-27500  
Belleville spring assembly with elastic guides  
[NASA-CASE-XNP-09452] c 15 N69-27504  
Trifunctional alcohol  
[NASA-CASE-NPO-10714] c 06 N69-31244  
Plurality of photosensitive cells on a pyramidal base for planetary trackers  
[NASA-CASE-XNP-04180] c 07 N69-39738  
Coating process  
[NASA-CASE-XNP-08508] c 18 N69-39895  
Bimetallic power controlled actuator  
[NASA-CASE-XNP-09778] c 09 N69-39929  
Piping arrangement through a double chamber structure  
[NASA-CASE-XNP-08882] c 15 N69-39935  
Micropacked column for a chromatographic system  
[NASA-CASE-XNP-04816] c 06 N69-39936  
Temperature sensitive capacitor device  
[NASA-CASE-XNP-09750] c 14 N69-39937  
Thermionic tantalum emitter doped with oxygen Patent Application  
[NASA-CASE-NPO-11138] c 03 N70-34646

Data handling system based on source significance, storage availability and data received from the source Patent Application  
[NASA-CASE-XNP-04162-1] c 08 N70-34675  
Electro-optical scanning apparatus Patent Application  
[NASA-CASE-NPO-11106] c 14 N70-34697  
Liquid junction and method of fabricating the same Patent Application  
[NASA-CASE-NPO-10682] c 15 N70-34699  
Helium refining by superfluidity Patent  
[NASA-CASE-XNP-00733] c 06 N70-34946  
Means and methods of depositing thin films on substrates Patent  
[NASA-CASE-XNP-00595] c 15 N70-34967  
Photosensitive device to detect bearing deviation Patent  
[NASA-CASE-XNP-00438] c 21 N70-35089  
Antenna beam-shaping apparatus Patent  
[NASA-CASE-XNP-00611] c 09 N70-35219  
Temperature-compensating means for cavity resonator of amplifier Patent  
[NASA-CASE-XNP-00449] c 14 N70-35220  
Parabolic reflector horn feed with spillover correction Patent  
[NASA-CASE-XNP-00540] c 09 N70-35382  
Means for visually indicating flight paths of vehicles between the Earth, Venus, and Mercury Patent  
[NASA-CASE-XNP-00708] c 14 N70-35394  
Space vehicle attitude control Patent  
[NASA-CASE-XNP-00465] c 21 N70-35395  
Binary to binary-coded-decimal converter Patent  
[NASA-CASE-XNP-00432] c 08 N70-35423  
Cassegrainian antenna subreflector flange for suppressing ground noise Patent  
[NASA-CASE-XNP-00683] c 09 N70-35425  
Ionization vacuum gauge Patent  
[NASA-CASE-XNP-00646] c 14 N70-35666  
Two-fluid magnetohydrodynamic system and method for thermal-electric power conversion Patent  
[NASA-CASE-XNP-00644] c 03 N70-36803  
Mechanical coordinate converter Patent  
[NASA-CASE-XNP-00614] c 14 N70-36907  
High pressure four-way valve Patent  
[NASA-CASE-XNP-00214] c 15 N70-36908  
Liquid rocket system Patent  
[NASA-CASE-XNP-00610] c 28 N70-36910  
Radar ranging receiver Patent  
[NASA-CASE-XNP-00748] c 07 N70-36911  
Attitude control for spacecraft Patent  
[NASA-CASE-XNP-00294] c 21 N70-36938  
Elastic universal joint Patent  
[NASA-CASE-XNP-00416] c 15 N70-36947  
Apparatus and method for control of a solid fueled rocket vehicle Patent  
[NASA-CASE-XNP-00217] c 28 N70-38181  
Expulsion bladder-equipped storage tank structure Patent  
[NASA-CASE-XNP-00612] c 11 N70-38182  
High-voltage cable Patent  
[NASA-CASE-XNP-00738] c 09 N70-38201  
Umbilical separator for rockets Patent  
[NASA-CASE-XNP-00425] c 11 N70-38202  
Multiple Belleville spring assembly Patent  
[NASA-CASE-XNP-00840] c 15 N70-38225  
Ignition system for monopropellant combustion devices Patent  
[NASA-CASE-XNP-00249] c 28 N70-38249  
Pressure regulating system Patent  
[NASA-CASE-XNP-00450] c 15 N70-38603  
Slit regulated gas journal bearing Patent  
[NASA-CASE-XNP-00476] c 15 N70-38620  
Steerable solid propellant rocket motor Patent  
[NASA-CASE-XNP-00234] c 28 N70-38645  
Space simulator Patent  
[NASA-CASE-XNP-00459] c 11 N70-38675  
Ejection unit Patent  
[NASA-CASE-XNP-00676] c 15 N70-38996  
Time-division multiplexer Patent  
[NASA-CASE-XNP-00431] c 09 N70-38998  
Trajectory-correction propulsion system Patent  
[NASA-CASE-XNP-01104] c 28 N70-39931  
Electrically-operated rotary shutter Patent  
[NASA-CASE-XNP-00637] c 14 N70-40273  
Zero gravity starting means for liquid propellant motors Patent  
[NASA-CASE-XNP-01390] c 28 N70-41275  
Parallel motion suspension device Patent  
[NASA-CASE-XNP-01567] c 15 N70-41310  
Ignition means for monopropellant Patent  
[NASA-CASE-XNP-00876] c 28 N70-41311  
Reinforcing means for diaphragms Patent  
[NASA-CASE-XNP-01962] c 32 N70-41370  
High pressure filter Patent  
[NASA-CASE-XNP-00732] c 28 N70-41447

Phase-locked loop with sideband rejecting properties Patent  
[NASA-CASE-XNP-02723] c 07 N70-41680  
Digital television camera control system Patent  
[NASA-CASE-XNP-01472] c 14 N70-41807  
Antiflutter ball check valve Patent  
[NASA-CASE-XNP-01152] c 15 N70-41811  
Roll attitude star sensor system Patent  
[NASA-CASE-XNP-01307] c 21 N70-41856  
Process for preparing sterile solid propellants Patent  
[NASA-CASE-XNP-01749] c 27 N70-41897  
Solenoid construction Patent  
[NASA-CASE-XNP-01951] c 09 N70-41929  
Closed loop ranging system Patent  
[NASA-CASE-XNP-01501] c 21 N70-41930  
Printed circuit board with bellows rivet connection Patent  
[NASA-CASE-XNP-05082] c 15 N70-41960  
Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent  
[NASA-CASE-XNP-00911] c 08 N70-41961  
Baseline stabilization system for ionization detector Patent  
[NASA-CASE-XNP-03128] c 10 N70-41991  
Single or joint amplitude distribution analyzer Patent  
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High pressure regulator valve Patent  
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Solar battery with interconnecting means for plural cells Patent  
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Binary number sorter Patent  
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Micro current measuring device using plural logarithmic response heated filamentary type diodes Patent  
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Automatic thermal switch Patent  
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Photoelectric energy spectrometer Patent  
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Anti-glare improvement for optical imaging systems Patent  
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High temperature lens construction Patent  
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Intermittent type silica gel adsorption refrigerator Patent  
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Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent  
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Electrical spot terminal assembly Patent  
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Sealed separable connection Patent  
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Apparatus and method for protecting a photographic device Patent  
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Ranging system Patent  
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Magnetic core current steering commutator Patent  
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Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent  
[NASA-CASE-XNP-10373] c 03 N71-18698  
A dc-coupled noninverting one-shot Patent  
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Automatic fault correction system for parallel signal channels Patent  
[NASA-CASE-XNP-03263] c 09 N71-18843  
Data compression processor Patent  
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[NASA-CASE-XNP-09453] c 08 N71-19420  
High voltage transistor circuit Patent  
[NASA-CASE-XNP-06837] c 09 N71-19516  
Solar cell matrix Patent  
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Electrical switching device Patent  
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Drift compensation circuit for analog to digital converter Patent  
[NASA-CASE-XNP-04780] c 08 N71-19687  
Roll-up solar array Patent  
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Method and device for determining battery state of charge Patent  
[NASA-CASE-XNP-10194] c 03 N71-20407  
Soil particles separator, collector and viewer Patent  
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Transmission line thermal short Patent  
[NASA-CASE-XNP-09775] c 09 N71-20445  
Synchronous servo loop control system Patent  
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Processing for producing a sterilized instrument Patent  
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Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples Patent  
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Elimination of frequency shift in a multiplex communication system Patent  
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High power-high voltage waterload Patent  
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Soldering with solder flux which leaves corrosion resistant coating Patent  
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Gas flow control device  
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[NASA-CASE-NPO-11771] c 03 N73-20040  
A m-ary linear feedback shift register with binary logic  
[NASA-CASE-NPO-11688] c 10 N73-20254  
Apparatus for recovering matter adhered to a host surface  
[NASA-CASE-NPO-11213] c 15 N73-20514  
Scan converting video tape recorder  
[NASA-CASE-NPO-10166-1] c 07 N73-22076  
Collapsible structure for an antenna reflector  
[NASA-CASE-NPO-11751] c 07 N73-24176  
Pump for delivering heated fluids  
[NASA-CASE-NPO-11417] c 15 N73-24513  
Ion thruster with a combination keeper electrode and electron baffle  
[NASA-CASE-NPO-11880] c 28 N73-24783  
Solid propellant rocket motor  
[NASA-CASE-NPO-11559] c 28 N73-24784  
Code regenerative clean-up loop transponder for a mu-type ranging system  
[NASA-CASE-NPO-11707] c 07 N73-25161  
Numerical computer, peripheral interactive device with manual controls  
[NASA-CASE-NPO-11497] c 08 N73-25206  
Radiant source tracker independent of nonconstant irradiance  
[NASA-CASE-NPO-11686] c 14 N73-25482  
Two carrier communication system with single transmitter  
[NASA-CASE-NPO-11548] c 07 N73-26118  
High pulse rate high resolution optical radar system  
[NASA-CASE-NPO-11426] c 07 N73-26119  
Counting digital filters  
[NASA-CASE-NPO-11821-1] c 08 N73-26175  
Automated attendance accounting system  
[NASA-CASE-NPO-11456] c 08 N73-26176  
Low phase noise digital frequency divider  
[NASA-CASE-NPO-11569] c 10 N73-26229  
Vehicle for use in planetary exploration  
[NASA-CASE-NPO-11368] c 11 N73-26238  
Temperature control system with a pulse width modulated bridge  
[NASA-CASE-NPO-11304] c 14 N73-26430  
Disconnect unit  
[NASA-CASE-NPO-11330] c 33 N73-26958

Filter for third order phase locked loops  
[NASA-CASE-NPO-11941-1] c 10 N73-27171  
Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier  
[NASA-CASE-NPO-11593-1] c 07 N73-28012  
Analog-to-digital converter  
[NASA-CASE-NPO-00477] c 08 N73-28045  
Pseudonoise (PN) synchronization of data system with derivation of clock frequency from received signal for clocking receiver PN generator  
[NASA-CASE-NPO-03623] c 09 N73-28084  
Apparatus and method for measuring the Seebeck coefficient and resistivity of materials  
[NASA-CASE-NPO-11749] c 14 N73-28486  
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer  
[NASA-CASE-NPO-05231] c 14 N73-28491  
Continuous magnetic flux pump  
[NASA-CASE-NPO-01187] c 15 N73-28516  
Preparation of alkali metal dispersions  
[NASA-CASE-NPO-08876] c 17 N73-28573  
Superconductive magnetic-field-trapping device  
[NASA-CASE-NPO-01185] c 26 N73-28710  
Automatic carrier acquisition system  
[NASA-CASE-NPO-11628-1] c 07 N73-30113  
Ferrofluidic solenoid  
[NASA-CASE-NPO-11738-1] c 09 N73-30185  
Silent emergency alarm system for schools and the like  
[NASA-CASE-NPO-11307-1] c 10 N73-30205  
RF-source resistance meters  
[NASA-CASE-NPO-11291-1] c 14 N73-30388  
Event sequence detector  
[NASA-CASE-NPO-11703-1] c 10 N73-32144  
Soil penetrometer  
[NASA-CASE-NPO-05530] c 14 N73-32321  
Quadrupole mass filter with means to generate a noise spectrum exclusive of the resonant frequency of the desired ions to deflect stable ions  
[NASA-CASE-NPO-04231] c 14 N73-32325  
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[NASA-CASE-NPO-01168] c 15 N73-32361  
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Method and apparatus for a single channel digital communications system  
[NASA-CASE-NPO-11302-2] c 32 N74-10132  
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Image data rate converter having a drum with a fixed head and a rotatable head  
[NASA-CASE-NPO-11659-1] c 35 N74-11283  
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Use of thin film light detector  
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[NASA-CASE-NPO-13044-1] c 35 N74-15094  
Compact hydrogenator  
[NASA-CASE-NPO-11682-1] c 35 N74-15127  
Short range laser obstacle detector  
[NASA-CASE-NPO-11856-1] c 36 N74-15145  
System for stabilizing cable phase delay utilizing a coaxial cable under pressure  
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[NASA-CASE-NPO-11820-1] c 32 N74-19788  
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Optically detonated explosive device	[NASA-CASE-NPO-11743-1]	c 28	N74-27425	Scan converting video tape recorder	[NASA-CASE-NPO-10168-2]	c 35	N76-16391	Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump	[NASA-CASE-NPO-13663-1]	c 35	N77-14406
Coherent receiver employing nonlinear coherence detection for carrier tracking	[NASA-CASE-NPO-11821-1]	c 32	N74-30523	Hydrogen rich gas generator	[NASA-CASE-NPO-13342-1]	c 37	N76-16448	Thermocouple installation	[NASA-CASE-NPO-13540-1]	c 35	N77-14409
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- Solar array strip and a method for forming the same  
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Ion mass spectrometer  
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Shaft transducer having dc output proportional to angular velocity  
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Centrifugal-reciprocating compressor  
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Solar energy modulator  
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[NASA-CASE-NPO-16392-1] c 44 N84-32912  
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Phase sensitive guidance sensor for wire-following vehicles  
[NASA-CASE-NPO-15341-1] c 35 N84-33769  
System for indicating fuel-efficient aircraft altitude  
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Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter  
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Saltless solar pond  
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Process and apparatus for growing a crystal ribbon  
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## K

**Kelsey-Hayes Co., Romulus, Mich.**  
Variable thrust ion engine utilizing thermally decomposable solid fuel Patent  
[NASA-CASE-XMF-00923] c 28 N70-36802  
**Keltec Industries, Inc., Alexandria, Va.**  
Unfurlable structure including coiled strips thrust launched upon tension release Patent  
[NASA-CASE-HQN-00937] c 07 N71-28979  
**Kentucky Univ., Lexington.**  
Apparatus for determining changes in limb volume  
[NASA-CASE-MSK-18759-1] c 52 N83-27578  
**Kinetologic Corp., Pasadena, Calif.**  
Excitation and detection circuitry for a flux responsive magnetic head  
[NASA-CASE-XNP-04183] c 09 N69-24329  
Tape guidance system and apparatus for the provision thereof Patent  
[NASA-CASE-XNP-09453] c 08 N71-19420  
Incremental tape recorder and data rate converter Patent  
[NASA-CASE-XNP-02778] c 08 N71-22710  
**Kollsman Instrument Corp., Elmhurst, N. Y.**  
Wide angle long eye relief eyepiece Patent  
[NASA-CASE-XMS-06058-1] c 23 N71-24857  
**Kollsman Instrument Corp., Syosset, N. Y.**  
Digital modulator and demodulator Patent  
[NASA-CASE-ERC-10041] c 08 N71-29138  
Ritchey-Chretien Telescope  
[NASA-CASE-GSC-11487-1] c 14 N73-30393  
**Kongsberg Instruments, Inc., Pasadena, Calif.**  
Accelerometer telemetry system  
[NASA-CASE-ARC-10849-1] c 17 N76-29347  
**Korad Corp., New York.**  
Laser apparatus for removing material from rotating objects Patent  
[NASA-CASE-MFS-11279] c 16 N71-20400

## L

**Life Systems, Inc., Beachwood, Ohio.**  
Iodine generator for reclaimed water purification  
[NASA-CASE-MSK-14632-1] c 54 N78-14784  
**Ling-Temco-Vought, Inc., Dallas, Tex.**  
Latch/ejector unit Patent  
[NASA-CASE-XLA-03538] c 15 N71-24897  
**Little (Arthur D.), Inc., Cambridge, Mass.**  
Apparatus for measuring thermal conductivity Patent  
[NASA-CASE-XGS-01052] c 14 N71-15992  
Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant  
[NASA-CASE-MSK-14331-1] c 27 N76-24405  
Flame retardant spandex type polyurethanes  
[NASA-CASE-MSK-14331-2] c 27 N78-17213  
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[NASA-CASE-MSK-14331-3] c 27 N78-32262  
Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSK-18382-1] c 27 N82-16238  
Heat sealable, flame and abrasion resistant coated fabric  
[NASA-CASE-MSK-18382-2] c 27 N84-14324

Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-2] c 54 N84-23113

Heat resistant protective hand covering  
[NASA-CASE-MSC-20261-1] c 54 N84-28484

**Litton Industries, Beverly Hills, Calif.**  
Life support system  
[NASA-CASE-MSC-12411-1] c 05 N72-20096

**Litton Industries, College Park, Md.**  
Shrink-fit gas valve Patent  
[NASA-CASE-XGS-00587] c 15 N70-35087

**Litton Industries, San Carlos, Calif.**  
Very high intensity light source using a cathode ray tube  
[NASA-CASE-XNP-01296] c 33 N75-27250

**Litton Systems, Inc., Minneapolis, Minn.**  
Apparatus for sampling particulates in gases  
[NASA-CASE-HQN-10037-1] c 14 N73-27376

**Lockheed Aircraft Corp., Burbank, Calif.**  
Aerodynamic protection for space flight vehicles Patent  
[NASA-CASE-XNP-02507] c 31 N71-17679

**Lockheed-California Co., Burbank.**  
Absorptive splitter for closely spaced supersonic engine air inlets Patent  
[NASA-CASE-XLA-02865] c 28 N71-15563

**Lockheed-California Co., Burbank.**  
Multistage aerospace craft  
[NASA-CASE-XMF-02263] c 05 N74-10907

**Lockheed Electronics Co., Houston, Tex.**  
Television signal scan rate conversion system Patent  
[NASA-CASE-XMS-07168] c 07 N71-11300

**Lockheed Electronics Co., Houston, Tex.**  
Burst synchronization detection system Patent  
[NASA-CASE-XMS-05605-1] c 10 N71-19468

**Lockheed Electronics Co., Houston, Tex.**  
Automatic signal range selector for metering devices Patent  
[NASA-CASE-XMS-06497] c 14 N71-26244

**Lockheed Electronics Co., Houston, Tex.**  
Monostable multivibrator with complementary NOR gates Patent  
[NASA-CASE-MSC-13492-1] c 10 N71-28860

**Lockheed Electronics Co., Houston, Tex.**  
Ultrastable calibrated light source  
[NASA-CASE-MSC-12293-1] c 14 N72-27411

**Lockheed Electronics Co., Houston, Tex.**  
Data storage, image tube type  
[NASA-CASE-MSC-14053-1] c 60 N74-12888

**Lockheed Electronics Co., Houston, Tex.**  
Differential phase shift keyed communication system  
[NASA-CASE-MSC-14065-1] c 32 N74-26654

**Lockheed Electronics Co., Houston, Tex.**  
Differential phase shift keyed signal resolver  
[NASA-CASE-MSC-14066-1] c 33 N74-27705

**Lockheed Electronics Co., Houston, Tex.**  
Method and apparatus for decoding compatible convolutional codes  
[NASA-CASE-MSC-14070-1] c 32 N74-32598

**Lockheed Electronics Co., Houston, Tex.**  
Pulse stretcher for narrow pulses  
[NASA-CASE-MSC-14130-1] c 33 N74-32711

**Lockheed Electronics Co., Houston, Tex.**  
Peak holding circuit for extremely narrow pulses  
[NASA-CASE-MSC-14129-1] c 33 N75-18479

**Lockheed Electronics Co., Houston, Tex.**  
Random pulse generator  
[NASA-CASE-MSC-14131-1] c 33 N75-19515

**Lockheed Electronics Co., Houston, Tex.**  
Digital transmitter for data bus communications system  
[NASA-CASE-MSC-14558-1] c 32 N75-21486

**Lockheed Electronics Co., Houston, Tex.**  
Low distortion receiver for bi-level baseband PCM waveforms  
[NASA-CASE-MSC-14557-1] c 32 N76-16249

**Lockheed Electronics Co., Houston, Tex.**  
System for producing chroma signals  
[NASA-CASE-MSC-14683-1] c 74 N77-18893

**Lockheed Electronics Co., Houston, Tex.**  
Phased array antenna control  
[NASA-CASE-MSC-14939-1] c 32 N79-11264

**Lockheed Electronics Co., Houston, Tex.**  
Apparatus and method for stabilized phase detection for binary signal tracking loops  
[NASA-CASE-MSC-16461-1] c 33 N79-11313

**Lockheed Electronics Co., Houston, Tex.**  
Multiple band circularly polarized microstrip antenna  
[NASA-CASE-MSC-18334-1] c 32 N80-32604

**Lockheed Electronics Co., Houston, Tex.**  
Multispectral scanner optical system  
[NASA-CASE-MSC-18255-1] c 74 N80-33210

**Lockheed Electronics Co., Houston, Tex.**  
Random digital encryption secure communication system  
[NASA-CASE-MSC-18462-1] c 32 N82-31583

**Lockheed Missiles and Space Co., Huntsville, Ala.**  
Diffuser/ejector system for a very high vacuum environment  
[NASA-CASE-MRS-25791-1] c 09 N84-27749

**Lockheed Missiles and Space Co., Sunnyvale, Calif.**  
Device for handling heavy loads  
[NASA-CASE-XNP-04969] c 11 N69-27466

**Lockheed Missiles and Space Co., Sunnyvale, Calif.**  
Transient heat transfer gauge Patent  
[NASA-CASE-XNP-09802] c 33 N71-15641

**Lockheed Missiles and Space Co., Sunnyvale, Calif.**  
Dual solid cryogenics for spacecraft refrigeration Patent  
[NASA-CASE-GSC-10188-1] c 23 N71-24725

**Lockheed Missiles and Space Co., Sunnyvale, Calif.**  
Apparatus for detecting the amount of material in a resonant cavity container Patent  
[NASA-CASE-XNP-02500] c 18 N71-27397

**Lockheed Missiles and Space Co., Sunnyvale, Calif.**  
Emergency earth orbital escape device  
[NASA-CASE-MSC-13281] c 31 N72-18859

**Lockheed Missiles and Space Co., Sunnyvale, Calif.**  
Solar energy powered heliostats  
[NASA-CASE-GSC-10945-1] c 21 N72-31637

**Lockheed Missiles and Space Co., Sunnyvale, Calif.**  
Coaxial inverted geometry transistor having buried emitter  
[NASA-CASE-ARC-10330-1] c 09 N73-32112

Whole body measurement systems  
[NASA-CASE-MSC-13972-1] c 52 N74-10975

Four phase logic systems  
[NASA-CASE-MSC-14240-1] c 33 N75-14957

Strain arrestor plate for fused silica tile  
[NASA-CASE-MSC-14182-1] c 27 N76-14264

Medical subject monitoring systems  
[NASA-CASE-MSC-14180-1] c 52 N76-14757

Two-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-1] c 27 N76-22377

Optical alignment device  
[NASA-CASE-ARC-10932-1] c 74 N76-22983

Three-component ceramic coating for silica insulation  
[NASA-CASE-MSC-14270-2] c 27 N76-23426

Process of forming catalytic surfaces for wet oxidation reactions  
[NASA-CASE-MSC-14831-1] c 25 N76-10225

Partial polarizer filter  
[NASA-CASE-GSC-12225-1] c 74 N79-14891

Method of fabricating a photovoltaic module of a substantially transparent construction  
[NASA-CASE-NPO-14303-1] c 44 N80-18550

**Lockheed Propulsion Co., Redlands, Calif.**  
Propellant grain for rocket motors Patent  
[NASA-CASE-XGS-03556] c 27 N70-35534

**LTV Aerospace Corp., Dallas, Tex.**  
Method of fluxless brazing and diffusion bonding of aluminum containing components  
[NASA-CASE-MSC-14435-1] c 37 N76-18455

**LTV Aerospace Corp., Hampton, Va.**  
Explosively activated egress area  
[NASA-CASE-LAR-12624-1] c 01 N83-35992

## M

**Macon-Rust Co., Lexington, Ky.**  
Stretcher Patent  
[NASA-CASE-XMF-06589] c 05 N71-23159

**Marlin-Rockwell Corp., Jamestown, N. Y.**  
Drilled ball bearing with a one piece anti-tipping cage assembly  
[NASA-CASE-LEW-11925-1] c 37 N75-31446

**Marquardt Corp., Van Nuys, Calif.**  
Fuel injection pump for internal combustion engines Patent  
[NASA-CASE-MSC-12139-1] c 28 N71-14058

**Marquardt Corp., Van Nuys, Calif.**  
Multilist film cooled pyrolytic graphite rocket nozzle Patent  
[NASA-CASE-XNP-04389] c 28 N71-20942

**Marquardt Corp., Van Nuys, Calif.**  
Tube sealing device Patent  
[NASA-CASE-NPO-10431] c 15 N71-29132

**Martin Marietta Aerospace, Denver, Colo.**  
Method and apparatus for tensile testing of metal foil  
[NASA-CASE-LAR-10208-1] c 35 N78-18400

**Martin Marietta Aerospace, Denver, Colo.**  
Pulse transducer with artifact signal attenuator  
[NASA-CASE-FRC-11012-1] c 52 N80-23969

**Martin Marietta Aerospace, Denver, Colo.**  
Urine collection apparatus  
[NASA-CASE-MSC-16381-1] c 52 N81-28740

**Martin Marietta Aerospace, Denver, Colo.**  
Measurement amplifier  
[NASA-CASE-MFS-25868-1] c 33 N84-32680

**Martin Marietta Corp., Baltimore, Md.**  
Landing gear Patent  
[NASA-CASE-XMF-01174] c 02 N70-41589

**Martin Marietta Corp., Baltimore, Md.**  
Emergency escape system Patent  
[NASA-CASE-XKS-02342] c 05 N71-11199

**Martin Marietta Corp., Denver, Colo.**  
Flexible/rigidifiable cable assembly  
[NASA-CASE-MSC-13512-1] c 15 N72-22485

**Martin Marietta Corp., Denver, Colo.**  
Derivation of a tangent function using an integrated circuit four-quadrant multiplier  
[NASA-CASE-MSC-13907-1] c 10 N73-26230

**Martin Marietta Corp., Denver, Colo.**  
Low distortion automatic phase control circuit  
[NASA-CASE-MFS-21671-1] c 33 N74-22885

**Martin Marietta Corp., Denver, Colo.**  
Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system  
[NASA-CASE-MSC-14245-1] c 18 N75-27041

**Martin Marietta Corp., Denver, Colo.**  
Filter regeneration systems  
[NASA-CASE-MSC-14273-1] c 34 N75-33342

**Martin Marietta Corp., Denver, Colo.**  
Turnstile and flared cone UHF antenna  
[NASA-CASE-LAR-10970-1] c 33 N76-14372

**Martin Marietta Corp., Denver, Colo.**  
Method and apparatus for fluffing, separating, and cleaning fibers  
[NASA-CASE-LAR-11224-1] c 37 N76-18456

**Martin Marietta Corp., Denver, Colo.**  
Hearing aid malfunction detection system  
[NASA-CASE-MSC-14916-1] c 33 N78-10375

**Martin Marietta Corp., Denver, Colo.**  
Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N78-27750

**Martin Marietta Corp., Denver, Colo.**  
Positive isolation disconnect  
[NASA-CASE-MSC-16043-1] c 37 N79-11402

**Martin Marietta Corp., Denver, Colo.**  
Urine collection device  
[NASA-CASE-MSC-16433-1] c 52 N81-24711

**Martin Marietta Corp., Denver, Colo.**  
Thermal protection system  
[NASA-CASE-MSC-18798-1] c 24 N82-26389

**Maryland Univ., College Park.**  
Method and apparatus for optical modulating a light signal Patent  
[NASA-CASE-GSC-10216-1] c 23 N71-26722

**Massachusetts Inst. of Tech., Cambridge.**  
Pretreatment method for anti-wettable materials  
[NASA-CASE-XMS-03537] c 15 N69-21471

**Massachusetts Inst. of Tech., Cambridge.**  
Hydraulic drive mechanism Patent  
[NASA-CASE-XMS-03252] c 15 N71-10658

**Massachusetts Inst. of Tech., Cambridge.**  
Electronic amplifier with power supply switching Patent  
[NASA-CASE-XMS-00945] c 09 N71-10788

**Massachusetts Inst. of Tech., Cambridge.**  
Method and apparatus for stabilizing a gaseous optical maser Patent  
[NASA-CASE-XGS-03644] c 16 N71-18614

**Massachusetts Inst. of Tech., Cambridge.**  
Power supply Patent  
[NASA-CASE-XMS-02159] c 10 N71-22961

**Massachusetts Inst. of Tech., Cambridge.**  
Optical frequency waveguide Patent  
[NASA-CASE-HQN-10541-1] c 07 N71-26291

**Massachusetts Inst. of Tech., Cambridge.**  
Laser machining apparatus Patent  
[NASA-CASE-HQN-10541-2] c 15 N71-27135

**Massachusetts Inst. of Tech., Cambridge.**  
Optical frequency waveguide and transmission system Patent  
[NASA-CASE-HQN-10541-4] c 16 N71-27183

**Massachusetts Inst. of Tech., Cambridge.**  
Compact spectroradiometer  
[NASA-CASE-HQN-10683] c 14 N71-34389

**Massachusetts Inst. of Tech., Cambridge.**  
Optical frequency waveguide and transmission system  
[NASA-CASE-HQN-10541-3] c 23 N72-23695

**Massachusetts Inst. of Tech., Cambridge.**  
Display research collision warning system  
[NASA-CASE-HQN-10703] c 21 N73-13643

**Massachusetts Inst. of Tech., Cambridge.**  
Transparent switchboard  
[NASA-CASE-MSC-13748-1] c 10 N73-32143

**Massachusetts Inst. of Tech., Cambridge.**  
Vapor deposition apparatus  
[NASA-CASE-HQN-10462] c 25 N75-29192

**Massachusetts Inst. of Tech., Cambridge.**  
Fault tolerant clock apparatus utilizing a controlled minority of clock elements  
[NASA-CASE-MSC-12531-1] c 35 N75-30504

**MB Associates, San Ramon, Calif.**  
Hypervelocity gun  
[NASA-CASE-XLE-03186-1] c 09 N79-21084

**McDonnell Aircraft Co., St. Louis, Mo.**  
Method for making a heat insulating and ablative structure  
[NASA-CASE-XMS-01108] c 15 N69-24322

**McDonnell Aircraft Co., St. Louis, Mo.**  
Heat flux sensor assembly  
[NASA-CASE-XMS-05908-1] c 14 N69-27459

**McDonnell Aircraft Co., St. Louis, Mo.**  
Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent  
[NASA-CASE-XMS-01905] c 12 N71-21089

**McDonnell Aircraft Co., St. Louis, Mo.**  
Power supply circuit Patent  
[NASA-CASE-XMS-00913] c 10 N71-23543

**McDonnell Aircraft Co., St. Louis, Mo.**  
Multiple circuit protector device  
[NASA-CASE-XMS-02744] c 33 N75-27249

**McDonnell Aircraft Co., St. Louis, Mo.**  
Apparatus for welding sheet material  
[NASA-CASE-XMS-01330] c 37 N75-27376

**McDonnell Aircraft Co., St. Louis, Mo.**  
Fused switch  
[NASA-CASE-XMS-01244-1] c 33 N79-33393

**McDonnell Aircraft Co., St. Louis, Mo.**  
Cooling system for high speed aircraft  
[NASA-CASE-LAR-12406-1] c 05 N81-26114

**McDonnell-Douglas Astronautics Co., Huntington Beach, Calif.**  
Heat transfer device  
[NASA-CASE-MFS-22938-1] c 34 N76-18374

**McDonnell-Douglas Astronautics Co., Santa Monica, Calif.**  
New polymers of perfluorobutadiene and method of manufacture Patent application  
[NASA-CASE-NPO-10863] c 06 N70-11251

**McDonnell-Douglas Astronautics Co., Santa Monica, Calif.**  
Method of polymerizing perfluorobutadiene Patent application  
[NASA-CASE-NPO-10447] c 06 N70-11252

**McDonnell-Douglas Astronautics Co., St. Louis, Mo.**  
Passive propellant system  
[NASA-CASE-MFS-23642-2] c 20 N78-27176

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Variable direction force coupler  
[NASA-CASE-MFS-20317] c 15 N73-13463

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Potable water dispenser  
[NASA-CASE-MFS-21115-1] c 54 N74-12779

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Metering gun for dispensing precisely measured charges of fluid  
[NASA-CASE-MFS-21183-1] c 54 N74-17853

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Airlock  
[NASA-CASE-MFS-20922-1] c 18 N74-22136

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Device for monitoring a change in mass in varying gravimetric environments  
[NASA-CASE-MFS-21556-1] c 35 N74-26945

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Thrust-isolating mounting  
[NASA-CASE-MFS-21680-1] c 18 N74-27397

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Device for measuring tensile forces  
[NASA-CASE-MFS-21728-1] c 35 N74-27865

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Flame detector operable in presence of proton radiation  
[NASA-CASE-MFS-21577-1] c 19 N74-29410

**McDonnell-Douglas Corp., Huntington Beach, Calif.**  
Phase-locked servo system  
[NASA-CASE-MFS-22073-1] c 33 N75-13139

Vacuum leak detector  
[NASA-CASE-LAR-11237-1] c 35 N75-19612

Meter for use in detecting tension in straps having predetermined elastic characteristics  
[NASA-CASE-MFS-22189-1] c 35 N75-19615

Latching device  
[NASA-CASE-MFS-21606-1] c 37 N75-19685

Device for use in loading tension members  
[NASA-CASE-MFS-21488-1] c 14 N75-24794

**McDonnell-Douglas Corp., Long Beach, Calif.**

Optimized bolted joint  
[NASA-CASE-LAR-13250-1] c 37 N84-20859

**McDonnell-Douglas Corp., Newport Beach, Calif.**

Method of making membranes  
[NASA-CASE-XNP-04264] c 03 N69-21337

**McDonnell-Douglas Corp., Santa Monica, Calif.**

Rocket nozzle test method Patent  
[NASA-CASE-NPO-10311] c 31 N71-15843

Reaction of fluorine with polyperfluoropolyenes  
[NASA-CASE-NPO-10862] c 06 N72-22107

Polymers of perfluorobutadiene and method of manufacture  
[NASA-CASE-NPO-10863-2] c 06 N72-25152

Electrolytic cell structure  
[NASA-CASE-LAR-11042-1] c 33 N75-27252

Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions  
[NASA-CASE-NPO-12122-1] c 24 N76-14203

Utilization of oxygen difluoride for syntheses of fluoropolymers  
[NASA-CASE-NPO-12061-1] c 27 N76-16228

**McDonnell-Douglas Corp., St. Louis, Mo.**

Thermally conductive polymers  
[NASA-CASE-GSC-11304-1] c 06 N72-21105

Passive propellant system  
[NASA-CASE-MFS-23842-1] c 20 N80-10278

Method of preparing radially homogeneous mercury cadmium telluride crystals  
[NASA-CASE-MFS-25768-1] c 76 N83-18533

**Medical Sciences Research Foundation, San Francisco, Calif.**

Reduction of blood serum cholesterol  
[NASA-CASE-NPO-12118-1] c 52 N75-15270

**Metlon Inst., Pittsburgh, Pa.**

Instrument for measuring torsional creep and recovery Patent  
[NASA-CASE-XLE-01481] c 14 N71-10781

**Melpar, Inc., Falls Church, Va.**

Television simulation for aircraft and space flight Patent  
[NASA-CASE-XFR-03107] c 09 N71-19449

Compact solar still Patent  
[NASA-CASE-XMS-04533] c 15 N71-23086

**Metcom, Inc., Salem, Mass.**

Tuning arrangement for an electron discharge device or the like Patent  
[NASA-CASE-XNP-09771] c 09 N71-24841

**Methodist Hospital, Houston, Tex.**

Snap-in compressible biomedical electrode  
[NASA-CASE-MSC-14823-1] c 52 N77-28717

**Microwave Electronics Corp., Palo Alto, Calif.**

Folded traveling wave maser structure Patent  
[NASA-CASE-XNP-05219] c 16 N71-15550

Superconducting magnet Patent  
[NASA-CASE-XNP-06503] c 23 N71-29049

**Microwave Research Corp., North Andover, Mass.**

Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector  
[NASA-CASE-NPO-13568-1] c 32 N76-21365

Multifrequency broadband polarized horn antenna  
[NASA-CASE-NPO-14588-1] c 32 N81-25278

**Midwest Research Inst., Kansas City, Mo.**

Preparation of ordered poly /arylenesiloxane/ polymers  
[NASA-CASE-XMF-10753] c 06 N71-11237

Inorganic solid film lubricants Patent  
[NASA-CASE-XMF-03988] c 15 N71-21403

Fluorinated esters of polycarboxylic acids  
[NASA-CASE-MFS-21040-1] c 06 N73-30098

**Milliken (D. B.) Co., Arcadia, Calif.**

Film feed camera having a detent means Patent  
[NASA-CASE-LAR-10686] c 14 N71-28935

**Minneapolis-Honeywell Regulator Co., Minn.**

Microelectronic module package Patent  
[NASA-CASE-XMS-02182] c 10 N71-28783

**Modern Machine and Tool Co., Newport News, Va.**

Means for accommodating large overstrain in lead wires  
[NASA-CASE-LAR-10168-1] c 33 N74-22885

**Monsanto Co., St. Louis, Mo.**

Method for the preparation of inorganic single crystal and polycrystalline electronic materials  
[NASA-CASE-XLE-02545-1] c 76 N79-21910

**Monsanto Research Corp., Dayton, Ohio.**

Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides  
[NASA-CASE-MFS-22356-1] c 23 N75-30256

Polyimides of ether-linked aryl tetracarboxylic dianhydrides  
[NASA-CASE-MFS-22355-1] c 23 N76-15268

**Motorola, Inc., Phoenix, Ariz.**

Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent  
[NASA-CASE-XMF-08665] c 10 N71-19467

Method of purifying metallurgical grade silicon employing reduced pressure atmospheric control  
[NASA-CASE-NPO-14474-1] c 26 N80-14229

Quartz ball valve  
[NASA-CASE-NPO-14473-1] c 37 N80-23654

Method and apparatus for quadriphase-shift-key and linear phase modulation  
[NASA-CASE-NPO-14444-1] c 33 N81-15192

PN lock indicator for dithered PN code tracking loop  
[NASA-CASE-NPO-14435-1] c 33 N81-33405

**Motorola, Inc., Scottsdale, Ariz.**

Sealed cabinetry Patent  
[NASA-CASE-MSC-12188-1] c 09 N71-18600

Digital frequency discriminator Patent  
[NASA-CASE-MFS-14322] c 08 N71-18692

Phase modulator Patent  
[NASA-CASE-MSC-13201-1] c 07 N71-28429

Capacitance multiplier and filter synthesizing network  
[NASA-CASE-NPO-11948-1] c 33 N74-32712

Quadraphase demodulation  
[NASA-CASE-GSC-12137-1] c 33 N78-32338

Discriminator aided phase lock acquisition for suppressed carrier signals  
[NASA-CASE-NPO-14311-1] c 33 N82-29539

**N****Narco Scientific, Houston, Tex.**

Dual physiological rate measurement instrument  
[NASA-CASE-MSC-20078-1] c 52 N82-32971

**National Academy of Sciences - National Research Council, Washington, D. C.**

Gyator employing field effect transistors  
[NASA-CASE-MFS-21433] c 09 N73-20232

Suppression of flutter  
[NASA-CASE-LAR-10682-1] c 02 N73-26004

Optical data processing using paraboloidal mirror segments  
[NASA-CASE-GSC-11296-1] c 23 N73-30666

Power supply for carbon dioxide lasers  
[NASA-CASE-GSC-11222-1] c 16 N73-32391

High field CdS detector for infrared radiation  
[NASA-CASE-LAR-11027-1] c 35 N74-18088

Holography utilizing surface plasmon resonances  
[NASA-CASE-MFS-22040-1] c 35 N74-26946

Stagnation pressure probe  
[NASA-CASE-LAR-11139-1] c 35 N74-32878

Integrated P-channel MOS gyator  
[NASA-CASE-MFS-22343-1] c 33 N74-34638

Automated analysis of oxidative metabolites  
[NASA-CASE-ARC-10469-1] c 25 N75-12086

Method of preparing water purification membranes  
[NASA-CASE-ARC-10643-1] c 25 N75-12087

Method of forming aperture plate for electron microscope  
[NASA-CASE-ARC-10448-2] c 74 N75-12732

Dually mode locked Nd:YAG laser  
[NASA-CASE-GSC-11748-1] c 36 N75-19654

Anti-gravity device  
[NASA-CASE-MFS-22758-1] c 70 N75-26789

Impact position detector for outer space particles  
[NASA-CASE-GSC-11829-1] c 35 N75-27331

Integrable power gyator  
[NASA-CASE-MFS-22342-1] c 33 N75-30428

Two stage light gas-plasma projectile accelerator  
[NASA-CASE-MFS-22287-1] c 75 N76-14931

Micrometeoroid velocity and trajectory analyzer  
[NASA-CASE-GSC-11892-1] c 35 N76-15433

Moving particle composition analyzer  
[NASA-CASE-GSC-11889-1] c 35 N76-16393

Self-energized plasma compressor  
[NASA-CASE-MFS-22145-2] c 75 N76-17951

Readout electrode assembly for measuring biological impedance  
[NASA-CASE-ARC-10818-1] c 35 N76-24525

Electron microscope aperture system  
[NASA-CASE-ARC-10448-3] c 35 N77-14408

Method for making a hot wire anemometer and product thereof  
[NASA-CASE-ARC-10900-1] c 35 N77-24454

Length controlled stabilized mode-lock ND:YAG laser  
[NASA-CASE-GSC-11571-1] c 36 N77-25499

Method of growing composites of the type exhibiting the Soret effect  
[NASA-CASE-MFS-22926-1] c 24 N77-27187

Method and apparatus for splitting a beam of energy  
[NASA-CASE-GSC-12083-1] c 73 N78-32848

Centilever mounted resilient pad gas bearing  
[NASA-CASE-LEW-12569-1] c 37 N79-10418

Shock isolator for operating a diode laser on a closed-cycle refrigerator  
[NASA-CASE-GSC-12297-1] c 37 N79-28549

An improved synthesis of 2,4,8,10-tetroxaspiro (5.5) undecane  
[NASA-CASE-ARC-11243-2] c 23 N80-31472

Pocket ECG electrode  
[NASA-CASE-ARC-11258-1] c 52 N80-33081

Subcutaneous electrode structure  
[NASA-CASE-ARC-11117-1] c 52 N81-14612

Microwave integrated circuit for Josephson voltage standards  
[NASA-CASE-MFS-23845-1] c 33 N81-17348

Autonomous navigation system  
[NASA-CASE-ARC-11257-1] c 04 N81-21047

Phosphorus-containing bisimide resins  
[NASA-CASE-ARC-11321-1] c 27 N81-27272

Synthesis of polyimides  
[NASA-CASE-ARC-11244-1] c 23 N82-18174

Nical ternary alloy having improved cyclic oxidation resistance  
[NASA-CASE-LEW-13339-1] c 26 N82-31505

Massively parallel processor computer  
[NASA-CASE-GSC-12223-1] c 60 N83-25378

Non-invasive method and apparatus for measuring pressure within a pliable vessel  
[NASA-CASE-ARC-11264-2] c 52 N83-29991

Polymers of phosphorylmethyl-2,4- and -2,6-diamino benzenes and the like  
[NASA-CASE-ARC-11506-1] c 27 N84-12313

Elastomer-modified phosphorus-containing imide resins  
[NASA-CASE-ARC-11400-1] c 27 N84-14322

Phosphorus-containing imide resins  
[NASA-CASE-ARC-11368-3] c 27 N84-22745

Method for the preparation of thin-skinned asymmetric reverse osmosis membranes and products thereof  
[NASA-CASE-ARC-11359-1] c 51 N84-28361

**National Aeronautics and Space Administration, Washington, D. C.**

Optical spin compensator  
[NASA-CASE-XGS-02401] c 14 N69-27485

Waveguide mixer  
[NASA-CASE-ERC-10179] c 07 N72-20141

Semiconductor-ferroelectric memory device  
[NASA-CASE-ERC-10307] c 08 N72-21188

Shielded cathode mode bulk effect devices  
[NASA-CASE-ERC-10119] c 26 N72-21701

Fabrication of single crystal film semiconductor devices  
[NASA-CASE-ERC-10222] c 09 N72-22199

Two color horizon sensor  
[NASA-CASE-ERC-10174] c 14 N72-25409

Ultraviolet atomic emission detector  
[NASA-CASE-HQN-10756-1] c 14 N72-25428

Optical pump and driver system for lasers  
[NASA-CASE-ERC-10283] c 16 N72-25485

Clear air turbulence detector  
[NASA-CASE-ERC-10081] c 14 N72-28437

Head-up attitude display  
[NASA-CASE-ERC-10392] c 21 N73-14692

System for indicating direction of intruder aircraft  
[NASA-CASE-ERC-10226-1] c 14 N73-16483

Aircraft control system  
[NASA-CASE-ERC-10439] c 02 N73-19004

Display system  
[NASA-CASE-ERC-10350] c 14 N73-20474

Method and apparatus for measuring solar activity and atmospheric radiation effects  
[NASA-CASE-ERC-10276] c 14 N73-26432

Doppler shift system  
[NASA-CASE-HQN-10740-1] c 72 N74-18310

Auditory display for the blind  
[NASA-CASE-HQN-10832-1] c 71 N74-21014

Laser system with an antiresonant optical ring  
[NASA-CASE-HQN-10844-1] c 36 N75-19653

Physical correction filter for improving the optical quality of an image  
[NASA-CASE-HQN-10542-1] c 74 N75-25708

Folding structure fabricated of rigid panels  
[NASA-CASE-XHO-02146] c 18 N75-27040

Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251

Vapor deposition apparatus  
[NASA-CASE-HQN-10462] c 25 N75-29192

Resistive anode image converter  
[NASA-CASE-HQN-10876-1] c 33 N76-27473

- Rechargeable battery which combats shape change of the zinc anode  
[NASA-CASE-HQN-10862-1] c 44 N76-29699
- System and method for tracking a signal source  
[NASA-CASE-HQN-10880-1] c 17 N78-17140
- Non-equilibrium radiation nuclear reactor  
[NASA-CASE-HQN-10841-1] c 73 N78-19920
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit  
[NASA-CASE-ARC-11059-1] c 54 N78-32721
- Safety flywheel  
[NASA-CASE-HQN-10888-1] c 44 N79-14527
- Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N78-33468
- Glass compositions with a high modulus of elasticity  
[NASA-CASE-HQN-10274-1] c 27 N82-29451
- High modulus invert analog glass compositions containing beryllia  
[NASA-CASE-HQN-10931-2] c 27 N82-29452
- Non-toxic invert analog glass compositions of high modulus  
[NASA-CASE-HQN-10328-2] c 27 N82-29454
- High modulus rare earth and beryllium containing silicate glass compositions  
[NASA-CASE-HQN-10595-1] c 27 N82-29455
- National Aeronautics and Space Administration. Ames Research Center, Moffett Field, Calif.**
- Nonmagnetic thermal motor for a magnetometer  
[NASA-CASE-XAR-03786] c 09 N69-21313
- Balanced bellows spirometer  
[NASA-CASE-XAR-01547] c 05 N69-21473
- Cryogenic apparatus for measuring the intensity of magnetic fields  
[NASA-CASE-XAC-02407] c 14 N69-27423
- Variable stiffness polymeric damper  
[NASA-CASE-XAC-11225] c 14 N69-27486
- Shock-layer radiation measurement  
[NASA-CASE-XAC-02970] c 14 N69-39896
- Protective circuit of the spark gap type  
[NASA-CASE-XAC-08981] c 09 N69-39897
- Apparatus for coupling a plurality of ungrounded circuits to a grounded circuit Patent  
[NASA-CASE-XAC-00086] c 09 N70-33182
- Two-plane balance Patent  
[NASA-CASE-XAC-00073] c 14 N70-34813
- Centrifuge mounted motion simulator Patent  
[NASA-CASE-XAC-00399] c 11 N70-34815
- Differential pressure cell Patent  
[NASA-CASE-XAC-00042] c 14 N70-34816
- High-temperature, high-pressure spherical segment valve Patent  
[NASA-CASE-XAC-00074] c 15 N70-34817
- Magnetically centered liquid column float Patent  
[NASA-CASE-XAC-00030] c 14 N70-34820
- Propeller blade loading control Patent  
[NASA-CASE-XAC-00139] c 02 N70-34856
- Temperature compensated solid state differential amplifier Patent  
[NASA-CASE-XAC-00435] c 09 N70-35440
- High speed low level electrical stepping switch Patent  
[NASA-CASE-XAC-00060] c 09 N70-39915
- Analog-to-digital conversion system Patent  
[NASA-CASE-XAC-00404] c 08 N70-40125
- Null-type vacuum microbalance Patent  
[NASA-CASE-XAC-00472] c 15 N70-40180
- Thermo-protective device for balances Patent  
[NASA-CASE-XAC-00648] c 14 N70-40400
- Three-axis controller Patent  
[NASA-CASE-XAC-01404] c 05 N70-41581
- Electric arc device for heating gases Patent  
[NASA-CASE-XAC-00319] c 25 N70-41628
- Dynamic sensor Patent  
[NASA-CASE-XAC-02877] c 14 N70-41681
- Universal pilot restraint suit and body support therefor Patent  
[NASA-CASE-XAC-00405] c 05 N70-41819
- Proportional controller Patent  
[NASA-CASE-XAC-03392] c 03 N70-41954
- Force transducer Patent  
[NASA-CASE-XAC-01101] c 14 N70-41957
- Electrode construction Patent  
[NASA-CASE-ARC-10043-1] c 05 N71-11193
- Telemeter adaptable for implanting in an animal Patent  
[NASA-CASE-XAC-05706] c 05 N71-12342
- Gyrotor type circuit Patent  
[NASA-CASE-XAC-10608-1] c 09 N71-12517
- Ultraviolet resonance lamp Patent  
[NASA-CASE-ARC-10030] c 09 N71-12521
- Differential temperature transducer Patent  
[NASA-CASE-XAC-00812] c 14 N71-15598
- Multiple circuit switch apparatus with improved pivot actuator structure Patent  
[NASA-CASE-XAC-03777] c 10 N71-15909
- Method of planetary atmospheric investigation using a split-trajectory dual flyby mode Patent  
[NASA-CASE-XAC-08494] c 30 N71-15990
- High efficiency multivibrator Patent  
[NASA-CASE-XAC-00942] c 10 N71-16042
- Apparatus for measuring conductivity and velocity of plasma utilizing a plurality of sensing coils positioned in the plasma Patent  
[NASA-CASE-XAC-05695] c 25 N71-16073
- Flight craft Patent  
[NASA-CASE-XAC-02058] c 02 N71-16087
- Three-axis finger tip controller for switches Patent  
[NASA-CASE-XAC-02405] c 09 N71-16089
- Electrostatic charged particle analyzer having deflection members shaped according to the periodic voltage applied thereto Patent  
[NASA-CASE-XAC-05506-1] c 24 N71-16095
- Inertial reference apparatus Patent  
[NASA-CASE-XAC-03107] c 23 N71-16098
- Fastener apparatus Patent  
[NASA-CASE-ARC-10140-1] c 15 N71-17653
- Stabilization of gravity oriented satellites Patent  
[NASA-CASE-XAC-01591] c 31 N71-17729
- Microwave flaw detector Patent  
[NASA-CASE-ARC-10009-1] c 15 N71-17822
- Hypervelocity gun Patent  
[NASA-CASE-XAC-05902] c 11 N71-18578
- Nonlinear analog-to-digital converter Patent  
[NASA-CASE-XAC-04031] c 08 N71-18594
- Demodulation system Patent  
[NASA-CASE-XAC-04030] c 10 N71-19472
- Phase quadrature-plural channel data transmission system Patent  
[NASA-CASE-XAC-06302] c 08 N71-19763
- Two force component measuring device Patent  
[NASA-CASE-XAC-04886-1] c 14 N71-20439
- Attitude controls for VTOL aircraft Patent  
[NASA-CASE-XAC-08972] c 02 N71-20570
- Electric arc apparatus Patent  
[NASA-CASE-XAC-01677] c 09 N71-20816
- Inertia diaphragm pressure transducer Patent  
[NASA-CASE-XAC-02981] c 14 N71-21072
- Stirring apparatus for plural test tubes Patent  
[NASA-CASE-XAC-06956] c 15 N71-21177
- Exposure system for animals Patent  
[NASA-CASE-XAC-05333] c 11 N71-22875
- Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent  
[NASA-CASE-XAC-02807] c 09 N71-23021
- Hall current measuring apparatus having a series resistor for temperature compensation Patent  
[NASA-CASE-XAC-01662] c 14 N71-23037
- Transfer valve Patent  
[NASA-CASE-XAC-01158] c 15 N71-23051
- Hard space suit Patent  
[NASA-CASE-XAC-07043] c 05 N71-23181
- Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent  
[NASA-CASE-XAC-05422] c 04 N71-23185
- Feedback integrator with grounded capacitor Patent  
[NASA-CASE-XAC-10607] c 10 N71-23669
- Floating two force component measuring device Patent  
[NASA-CASE-XAC-04885] c 14 N71-23790
- Control device Patent  
[NASA-CASE-XAC-10019] c 15 N71-23809
- Means for suppressing or attenuating bending motion of elastic bodies Patent  
[NASA-CASE-XAC-05632] c 32 N71-23971
- Device for measuring pressure Patent  
[NASA-CASE-XAC-04458] c 14 N71-24232
- Transducer circuit and catheter transducer Patent  
[NASA-CASE-ARC-10132-1] c 09 N71-24597
- Skeletal stressing method and apparatus Patent  
[NASA-CASE-ARC-10100-1] c 05 N71-24738
- Modified polyurethane foams for fuel-fire Patent  
[NASA-CASE-ARC-10098-1] c 06 N71-24739
- Deep space monitor communication satellite system Patent  
[NASA-CASE-XAC-06029-1] c 31 N71-24813
- Laser fluid velocity detector Patent  
[NASA-CASE-XAC-10770-1] c 16 N71-24828
- Transient video signal recording with expanded playback Patent  
[NASA-CASE-ARC-10003-1] c 09 N71-25866
- Thermally cycled magnetometer Patent  
[NASA-CASE-XAC-03740] c 14 N71-26135
- Optical machine tool alignment indicator Patent  
[NASA-CASE-XAC-09489-1] c 15 N71-26673
- Energy limiter for hydraulic actuators Patent  
[NASA-CASE-ARC-10131-1] c 15 N71-27754
- Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent  
[NASA-CASE-ARC-10137-1] c 09 N71-28468
- Locomotion and restraint aid Patent  
[NASA-CASE-ARC-10153] c 05 N71-28619
- Line following servosystem Patent  
[NASA-CASE-XAC-00001] c 15 N71-28952
- Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent  
[NASA-CASE-XAC-00048] c 02 N71-29128
- Precision rectifier with FET switching means Patent  
[NASA-CASE-ARC-10101-1] c 09 N71-33109
- Solar cell Patent  
[NASA-CASE-ARC-10050] c 03 N71-33409
- Phase shift circuit apparatus  
[NASA-CASE-ARC-10269-1] c 10 N72-16172
- High intensity radiant energy pulse source having means for opening shutter when light flux has reached a desired level  
[NASA-CASE-ARC-10178-1] c 09 N72-17152
- Telemetry actuated switch  
[NASA-CASE-ARC-10105] c 09 N72-17153
- Active RC networks  
[NASA-CASE-ARC-10020] c 10 N72-17172
- Apparatus for automatically stabilizing the attitude of a nonguided vehicle  
[NASA-CASE-ARC-10134] c 30 N72-17873
- Flexible fire retardant foam  
[NASA-CASE-ARC-10180-1] c 28 N72-20767
- Method and apparatus for swept-frequency impedance measurements of welds  
[NASA-CASE-ARC-10176-1] c 15 N72-21464
- Space suit having improved waist and torso movement  
[NASA-CASE-ARC-10275-1] c 05 N72-22092
- RF controlled solid state switch  
[NASA-CASE-ARC-10136-1] c 09 N72-22202
- Wide range dynamic pressure sensor  
[NASA-CASE-ARC-10263-1] c 14 N72-22438
- Method and apparatus for measuring the damping characteristics of a structure  
[NASA-CASE-ARC-10154-1] c 14 N72-22440
- Magnetic position detection method and apparatus  
[NASA-CASE-ARC-10179-1] c 21 N72-22619
- Fluidic proportional thruster system  
[NASA-CASE-ARC-10106-1] c 28 N72-22769
- Thermoelectric radiometer utilizing polymer film  
[NASA-CASE-ARC-10138-1] c 14 N72-24477
- Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines  
[NASA-CASE-ARC-10325] c 06 N72-25147
- Stereoscopic television system and apparatus  
[NASA-CASE-ARC-10160-1] c 23 N72-27728
- Metallic intrusion detector system  
[NASA-CASE-ARC-10265-1] c 10 N72-28240
- Apparatus for ionization analysis  
[NASA-CASE-ARC-10017-1] c 14 N72-29464
- Nondispersive gas analyzing method and apparatus wherein radiation is serially passed through a reference and unknown gas  
[NASA-CASE-ARC-10308-1] c 06 N72-31141
- Two degree inverted flexure  
[NASA-CASE-ARC-10345-1] c 15 N73-12488
- Intumescent paint containing nitrile rubber  
[NASA-CASE-ARC-10196-1] c 18 N73-13562
- Temperature compensated light source using a light emitting diode  
[NASA-CASE-ARC-10467-1] c 09 N73-14214
- Self-tuning bandpass filter  
[NASA-CASE-ARC-10264-1] c 09 N73-20231
- Micrometeoroid analyzer  
[NASA-CASE-ARC-10443-1] c 14 N73-20477
- Multiple pass reimagining optical system  
[NASA-CASE-ARC-10194-1] c 23 N73-20741
- Intruder detection system  
[NASA-CASE-ARC-10097-2] c 07 N73-25160
- Interferometric rotation sensor  
[NASA-CASE-ARC-10278-1] c 14 N73-25463
- Dual-fuselage aircraft having yawable wing and horizontal stabilizer  
[NASA-CASE-ARC-10470-1] c 02 N73-26005
- Temperature controller for a fluid cooled garment  
[NASA-CASE-ARC-10589-1] c 05 N73-26071
- Visual examination apparatus  
[NASA-CASE-ARC-10329-1] c 05 N73-26072
- Intumescent composition, foamed product prepared therewith, and process for making same  
[NASA-CASE-ARC-10304-1] c 18 N73-26572
- Infrared tunable laser  
[NASA-CASE-ARC-10463-1] c 09 N73-32111
- Low power electromagnetic flowmeter providing accurate zero set  
[NASA-CASE-ARC-10362-1] c 14 N73-32326
- Hand-held photomicroscope  
[NASA-CASE-ARC-10468-1] c 14 N73-33361

- Alignment apparatus using a laser having a gravitationally sensitive cavity reflector  
[NASA-CASE-ARC-10444-1] c 16 N73-33397
- Polyimide foam for the thermal insulation and fire protection  
[NASA-CASE-ARC-10484-1] c 27 N74-12812
- Flexible fire retardant polyisocyanate modified neoprene foam  
[NASA-CASE-ARC-10180-1] c 27 N74-12814
- Heater-mixer for stored fluids  
[NASA-CASE-ARC-10442-1] c 35 N74-15093
- Bimetallic fluid displacement apparatus  
[NASA-CASE-ARC-10441-1] c 35 N74-15126
- Automatic real-time pair-feeding system for animals  
[NASA-CASE-ARC-10302-1] c 51 N74-15778
- Overvoltage protection network  
[NASA-CASE-ARC-10197-1] c 33 N74-17929
- Ultrasonic biomedical measuring and recording apparatus  
[NASA-CASE-ARC-10597-1] c 52 N74-20726
- Ultraviolet and thermally stable polymer compositions  
[NASA-CASE-ARC-10592-1] c 27 N74-21158
- High speed shutter  
[NASA-CASE-ARC-10516-1] c 70 N74-21300
- Bio-isolated dc operational amplifier  
[NASA-CASE-ARC-10598-1] c 33 N74-21851
- Programmable physiological infusion  
[NASA-CASE-ARC-10447-1] c 52 N74-22771
- Chromato-fluorographic drug detector  
[NASA-CASE-ARC-10833-1] c 25 N74-26847
- Intumescent composition, foamed product prepared therewith and process for making same  
[NASA-CASE-ARC-10304-2] c 27 N74-27037
- Photomultiplier circuit including means for rapidly reducing the sensitivity thereof  
[NASA-CASE-ARC-10593-1] c 33 N74-27682
- G-load measuring and indicator apparatus  
[NASA-CASE-ARC-10806] c 06 N74-27872
- Concentric differential gearing arrangement  
[NASA-CASE-ARC-10462-1] c 37 N74-27901
- Measurement of plasma temperature and density using radiation absorption  
[NASA-CASE-ARC-10598-1] c 75 N74-30156
- Abating exhaust noises in jet engines  
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- Solid medium thermal engine  
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[NASA-CASE-ERC-10138] c 26 N71-14354  
Focused image holography with extended sources Patent  
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Recording and reconstructing focused image holograms Patent  
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Sorption vacuum trap Patent  
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Leak detector wherein a probe is monitored with ultraviolet radiation Patent  
[NASA-CASE-ERC-10034] c 15 N71-24896  
Method for detecting leaks in hermetically sealed containers Patent  
[NASA-CASE-ERC-10045] c 15 N71-24910  
Satellite aided vehicle avoidance system Patent  
[NASA-CASE-ERC-10090] c 21 N71-24948  
Transverse piezoresistance and pinch effect electromechanical transducers Patent  
[NASA-CASE-ERC-10088] c 26 N71-25490  
A solid state acoustic variable time delay line Patent  
[NASA-CASE-ERC-10032] c 10 N71-25900  
Method and means for recording and reconstructing holograms without use of a reference beam Patent  
[NASA-CASE-ERC-10020] c 16 N71-26154  
Electromechanical control actuator system Patent  
[NASA-CASE-ERC-10022] c 15 N71-26635  
Method and apparatus for detecting gross leaks Patent  
[NASA-CASE-ERC-10033] c 14 N71-26672  
Field ionization electrodes Patent  
[NASA-CASE-ERC-10013] c 09 N71-26678  
Voltage regulator Patent  
[NASA-CASE-ERC-10113] c 09 N71-27053  
A multichannel photoionization chamber for absorption analysis Patent  
[NASA-CASE-ERC-10044-1] c 14 N71-27090  
Pressure sensitive transducers Patent  
[NASA-CASE-ERC-10087] c 14 N71-27334  
Constant frequency output two stage induction machine systems Patent  
[NASA-CASE-ERC-10065] c 09 N71-27384  
Fluid power transmitting gas bearing Patent  
[NASA-CASE-ERC-10097] c 15 N71-28485  
Color television systems using a single gun color cathode ray tube Patent  
[NASA-CASE-ERC-10098] c 09 N71-28618  
Ion microprobe mass spectrometer for analyzing fluid materials Patent  
[NASA-CASE-ERC-10014] c 14 N71-28863  
Orifice gross leak tester Patent  
[NASA-CASE-ERC-10150] c 14 N71-28992  
Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent  
[NASA-CASE-XER-11203] c 14 N71-28994  
Quasi-optical microwave component Patent  
[NASA-CASE-ERC-10011] c 07 N71-29065  
Multiple hologram recording and readout system Patent  
[NASA-CASE-ERC-10151] c 16 N71-29131  
Plasma fluidic hybrid display Patent  
[NASA-CASE-ERC-10100] c 09 N71-33519  
Optical systems having spatially invariant outputs  
[NASA-CASE-ERC-10248] c 14 N72-17323  
Method of detecting impending saturation of magnetic cores  
[NASA-CASE-ERC-10089] c 23 N72-17747  
Logarithmic function generator utilizing an exponentially varying signal in an inverse manner  
[NASA-CASE-ERC-10267] c 09 N72-23173

Method and apparatus for limiting field emission current  
[NASA-CASE-ERC-10015-2] c 10 N72-27246  
National Aeronautics and Space Administration. Flight Research Center, Edwards, Calif.  
Rocket chamber leak test fixture  
[NASA-CASE-XFR-09479] c 14 N69-27503  
Three axis controller Patent  
[NASA-CASE-XFR-00181] c 21 N70-33279  
Catalyst bed removing tool Patent  
[NASA-CASE-XFR-00811] c 15 N70-36901  
Two-axis controller Patent  
[NASA-CASE-XFR-04104] c 03 N70-42073  
Controlled visibility device for an aircraft Patent  
[NASA-CASE-XFR-04147] c 11 N71-10748  
Biomedical electrode arrangement Patent  
[NASA-CASE-XFR-10856] c 05 N71-11189  
Lifting body Patent Application  
[NASA-CASE-FRC-10063] c 01 N71-12217  
Energy management system for glider type vehicle Patent  
[NASA-CASE-XFR-00756] c 02 N71-13421  
Quick attach mechanism Patent  
[NASA-CASE-XFR-05421] c 15 N71-22994  
Heat flux measuring system Patent  
[NASA-CASE-XFR-03802] c 33 N71-23085  
Threadless fastener apparatus Patent  
[NASA-CASE-XFR-05302] c 15 N71-23254  
Traversing probe Patent  
[NASA-CASE-XFR-02007] c 12 N71-24692  
Layout tool Patent  
[NASA-CASE-FRC-10005] c 15 N71-26145  
Pulsed excitation voltage circuit for transducers  
[NASA-CASE-FRC-10038] c 09 N72-22200  
Acoustical transducer calibrating system and apparatus  
[NASA-CASE-FRC-10060-1] c 14 N73-27379  
Three-axis adjustable loading structure  
[NASA-CASE-FRC-10051-1] c 35 N74-13129  
Terminal guidance system  
[NASA-CASE-FRC-10049-1] c 04 N74-13420  
Full wave modulator-demodulator amplifier apparatus  
[NASA-CASE-FRC-10072-1] c 33 N74-14939  
Rotating raster generator  
[NASA-CASE-FRC-10071-1] c 32 N74-20813  
Inflatable device for installing strain gage bridges  
[NASA-CASE-FRC-11068-1] c 35 N84-12443  
National Aeronautics and Space Administration. Goddard Inst. for Space Studies, New York.  
Application of luciferase assay for ATP to antimicrobial drug susceptibility  
[NASA-CASE-GSC-12039-1] c 51 N77-22794  
Method for fabricating a mass spectrometer inlet leak  
[NASA-CASE-GSC-12077-1] c 35 N77-24455  
Length controlled stabilized mode-lock ND:YAG laser  
[NASA-CASE-GSC-11571-1] c 36 N77-25499  
Three phase full wave dc motor decoder  
[NASA-CASE-GSC-11824-1] c 33 N77-26386  
Gregorian all-reflective optical system  
[NASA-CASE-GSC-12058-1] c 74 N77-26942  
Opto-mechanical subsystem with temperature compensation through isothermal design  
[NASA-CASE-GSC-12059-1] c 35 N77-27386  
Controlled caging and uncaging mechanism  
[NASA-CASE-GSC-11063-1] c 37 N77-27400  
Wideband heterodyne receiver for laser communication system  
[NASA-CASE-GSC-12053-1] c 32 N77-28346  
Method and apparatus for producing an image from a transparent object  
[NASA-CASE-GSC-11989-1] c 74 N77-28932  
Pseudo noise code and data transmission method and apparatus  
[NASA-CASE-GSC-12017-1] c 32 N77-30308  
Speech analyzer  
[NASA-CASE-GSC-11898-1] c 32 N77-30309  
Automatic transponder  
[NASA-CASE-GSC-12075-1] c 32 N77-31350  
Method of treating the surface of a glass member  
[NASA-CASE-GSC-12110-1] c 27 N77-32308  
Flat-plate heat pipe  
[NASA-CASE-GSC-11898-1] c 34 N77-32413  
Fluid sampling device  
[NASA-CASE-GSC-12143-1] c 35 N77-32456  
Analog to digital converter for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-3] c 60 N77-32731  
Remote sensing of vegetation and soil using microwave ellipsometry  
[NASA-CASE-GSC-11878-1] c 43 N78-10529  
Memory device for two-dimensional radiant energy array computers  
[NASA-CASE-GSC-11839-2] c 60 N78-10709

National Aeronautics and Space Administration. Goddard Space Flight Center, Greenbelt, Md.  
Regulated dc to dc converter  
[NASA-CASE-XGS-03429] c 03 N69-21330  
Apparatus for measuring swelling characteristics of membranes  
[NASA-CASE-XGS-03865] c 14 N69-21363  
Tumbler system to provide random motion  
[NASA-CASE-XGS-02437] c 15 N69-21472  
Automatic acquisition system for phase-lock loop  
[NASA-CASE-XGS-04994] c 09 N69-21543  
Low power drain semi-conductor circuit  
[NASA-CASE-XGS-04999] c 09 N69-24317  
Spacecraft battery seals  
[NASA-CASE-XGS-03864] c 15 N69-24320  
Scanning aspect sensor employing an apertured disc and a commutator  
[NASA-CASE-XGS-08266] c 14 N69-27432  
Monopulse system with an electronic scanner  
[NASA-CASE-XGS-05582] c 07 N69-27480  
Ring counter  
[NASA-CASE-XGS-03095] c 09 N69-27483  
Retrodirective optical system  
[NASA-CASE-XGS-04480] c 16 N69-27491  
Time division multiplex system  
[NASA-CASE-XGS-05918] c 07 N69-39974  
Doppler frequency spread correction device for multiplex transmissions  
[NASA-CASE-XGS-02749] c 07 N69-39978  
Alkali-metal silicate protective coating  
[NASA-CASE-XGS-04119] c 18 N69-39979  
Device for measuring electron-beam intensities and for subjecting materials to electron irradiation in an electron microscope  
[NASA-CASE-XGS-01725] c 14 N69-39982  
Light sensitive digital aspect sensor Patent  
[NASA-CASE-XGS-00359] c 14 N70-34158  
Method and apparatus for determining satellite orientation utilizing spatial energy sources Patent  
[NASA-CASE-XGS-00466] c 21 N70-34297  
Binary magnetic memory device Patent  
[NASA-CASE-XGS-00174] c 08 N70-34743  
Full binary adder Patent  
[NASA-CASE-XGS-00689] c 08 N70-34787  
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent  
[NASA-CASE-XGS-00381] c 09 N70-34819  
Space and atmospheric reentry vehicle Patent  
[NASA-CASE-XGS-00260] c 31 N70-37924  
Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00458] c 09 N70-38604  
Switching mechanism with energy storage means Patent  
[NASA-CASE-XGS-00473] c 03 N70-38713  
Variable frequency magnetic multivibrator Patent  
[NASA-CASE-XGS-00131] c 09 N70-38995  
Stretch de-spin mechanism Patent  
[NASA-CASE-XGS-00619] c 30 N70-40016  
Folding boom assembly Patent  
[NASA-CASE-XGS-00938] c 32 N70-41387  
Cryogenic connector for vacuum use Patent  
[NASA-CASE-XGS-02441] c 15 N70-41629  
Endless tape cartridge Patent  
[NASA-CASE-XGS-00769] c 14 N70-41647  
Apparatus for producing three-dimensional recordings of fluorescence spectra Patent  
[NASA-CASE-XGS-01231] c 14 N70-41676  
Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent  
[NASA-CASE-XGS-02608] c 07 N70-41678  
Prevention of pressure build-up in electrochemical cells Patent  
[NASA-CASE-XGS-01419] c 03 N70-41864  
Variable time constant smoothing circuit Patent  
[NASA-CASE-XGS-01893] c 10 N70-41984  
Endless tape transport mechanism Patent  
[NASA-CASE-XGS-01223] c 07 N71-10609  
Reversible ring counter employing cascaded single SCR stages Patent  
[NASA-CASE-XGS-01473] c 09 N71-10673  
Electronic beam switching commutator Patent  
[NASA-CASE-XGS-01451] c 09 N71-10677  
Sun tracker with rotatable plane-parallel plate and two photocells Patent  
[NASA-CASE-XGS-01159] c 21 N71-10678  
Non-magnetic battery case Patent  
[NASA-CASE-XGS-00888] c 03 N71-11053  
Interconnection of solar cells Patent  
[NASA-CASE-XGS-01475] c 03 N71-11058  
Frequency shift keyed demodulator Patent  
[NASA-CASE-XGS-02889] c 07 N71-11282  
Bi-polar phase detector and corrector for split phase PCM data signals Patent  
[NASA-CASE-XGS-01590] c 07 N71-12392

Data processor having multiple sections activated at different times by selective power coupling to the sections Patent  
 [NASA-CASE-XGS-04767] c 08 N71-12494  
 Position location system and method Patent  
 [NASA-CASE-GSC-10087-2] c 21 N71-13958  
 Fire resistant coating composition Patent  
 [NASA-CASE-GSC-10072] c 18 N71-14014  
 Passively regulated water electrolysis rocket engine Patent  
 [NASA-CASE-XGS-08729] c 28 N71-14044  
 Attitude control system Patent  
 [NASA-CASE-XGS-04393] c 21 N71-14159  
 Retrodirective modulator Patent  
 [NASA-CASE-GSC-10062] c 14 N71-15605  
 Spacecraft attitude detection system by stellar reference Patent  
 [NASA-CASE-XGS-03431] c 21 N71-15842  
 Cartwheel satellite synchronization system Patent  
 [NASA-CASE-XGS-05579] c 31 N71-15676  
 Wide range linear fluxgate magnetometer Patent  
 [NASA-CASE-XGS-01587] c 14 N71-15962  
 Low friction magnetic recording tape Patent  
 [NASA-CASE-XGS-00373] c 23 N71-15978  
 Method for etching copper Patent  
 [NASA-CASE-XGS-06306] c 17 N71-16044  
 Bacteriostatic conformal coating and methods of application Patent  
 [NASA-CASE-GSC-10007] c 18 N71-16046  
 Serrodyne frequency converter re-entrant amplifier system Patent  
 [NASA-CASE-XGS-01022] c 07 N71-16088  
 Position location and data collection system and method Patent  
 [NASA-CASE-GSC-10083-1] c 30 N71-16090  
 Position sensing device employing misaligned magnetic field generating and detecting apparatus Patent  
 [NASA-CASE-XGS-07514] c 23 N71-16099  
 Optical tracker having overlapping reticles on parallel axes Patent  
 [NASA-CASE-XGS-05715] c 23 N71-16100  
 Self-erecting reflector Patent  
 [NASA-CASE-XGS-09190] c 31 N71-16102  
 Dust particle injector for hypervelocity accelerators Patent  
 [NASA-CASE-XGS-06628] c 24 N71-16213  
 Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent  
 [NASA-CASE-XGS-05291] c 23 N71-16341  
 Angular position and velocity sensing apparatus Patent  
 [NASA-CASE-XGS-05680] c 14 N71-17585  
 Apparatus for controlling the velocity of an electromechanical drive for interferometers and the like Patent  
 [NASA-CASE-XGS-03532] c 14 N71-17627  
 Omni-directional anisotropic molecular trap Patent  
 [NASA-CASE-XGS-00783] c 30 N71-17788  
 Method of making tubes Patent  
 [NASA-CASE-XGS-04175] c 15 N71-18579  
 Pulse-type magnetic core memory element circuit with blocking oscillator feedback Patent  
 [NASA-CASE-XGS-03303] c 08 N71-18595  
 Ripple add and ripple subtract binary counters Patent  
 [NASA-CASE-XGS-04766] c 08 N71-18602  
 Computing apparatus Patent  
 [NASA-CASE-XGS-04765] c 08 N71-18693  
 Stepping motor control circuit Patent  
 [NASA-CASE-GSC-10366-1] c 10 N71-18772  
 Traffic control system and method Patent  
 [NASA-CASE-GSC-10087-1] c 02 N71-19287  
 Apparatus for measuring current flow Patent  
 [NASA-CASE-XGS-02439] c 14 N71-19431  
 Synchronous counter Patent  
 [NASA-CASE-XGS-02440] c 08 N71-19432  
 Wide range data compression system Patent  
 [NASA-CASE-XGS-02612] c 08 N71-19435  
 Apparatus for computing square roots Patent  
 [NASA-CASE-XGS-04768] c 08 N71-19437  
 Method and apparatus for battery charge control Patent  
 [NASA-CASE-XGS-05432] c 03 N71-19438  
 Stable amplifier having a stable quiescent point Patent  
 [NASA-CASE-XGS-02812] c 09 N71-19466  
 Tracking antenna system Patent  
 [NASA-CASE-GSC-10553-1] c 07 N71-19854  
 Electrochemical coulometer and method of forming same Patent  
 [NASA-CASE-XGS-05434] c 03 N71-20491  
 Display for binary characters Patent  
 [NASA-CASE-XGS-04987] c 08 N71-20571  
 Amplifier clamping circuit for horizon scanner Patent  
 [NASA-CASE-XGS-01784] c 10 N71-20782

Diversity receiving system with diversity phase lock Patent  
 [NASA-CASE-XGS-01222] c 10 N71-20841  
 Signal detection and tracking apparatus Patent  
 [NASA-CASE-XGS-03502] c 10 N71-20852  
 Polarization diversity monopulse tracking receiver Patent  
 [NASA-CASE-XGS-03501] c 09 N71-20884  
 System for recording and reproducing pulse code modulated data Patent  
 [NASA-CASE-XGS-01021] c 08 N71-21042  
 Satellite appendage tie down cord Patent  
 [NASA-CASE-XGS-02554] c 31 N71-21064  
 Reaction wheel scanner Patent  
 [NASA-CASE-XGS-02629] c 14 N71-21082  
 Nonmagnetic, explosive actuated indexing device Patent  
 [NASA-CASE-XGS-02422] c 15 N71-21529  
 Bidirectional step torque filter with zero backlash characteristic Patent  
 [NASA-CASE-XGS-04227] c 15 N71-21744  
 Conforming polisher for aspheric surface of revolution Patent  
 [NASA-CASE-XGS-02884] c 15 N71-22705  
 Precision thrust gage Patent  
 [NASA-CASE-XGS-02319] c 14 N71-22965  
 Sealing device for an electrochemical cell Patent  
 [NASA-CASE-XGS-02630] c 03 N71-22974  
 Rotary bead dropper and selector for testing micrometeorite detectors Patent  
 [NASA-CASE-XGS-03304] c 09 N71-22988  
 Moment of inertia test fixture Patent  
 [NASA-CASE-XGS-01023] c 14 N71-22992  
 Fluid flow meter with comparator reference means Patent  
 [NASA-CASE-XGS-01331] c 14 N71-22998  
 Foamed in place ceramic refractory insulating material Patent  
 [NASA-CASE-XGS-02435] c 18 N71-22998  
 Digital telemetry system Patent  
 [NASA-CASE-XGS-01812] c 07 N71-23001  
 Bonded elastomeric seal for electrochemical cells Patent  
 [NASA-CASE-XGS-02631] c 03 N71-23006  
 Apparatus providing a directive field pattern and attitude sensing of a spin stabilized satellite Patent  
 [NASA-CASE-XGS-02607] c 31 N71-23009  
 Complementary regenerative switch Patent  
 [NASA-CASE-XGS-02751] c 09 N71-23015  
 Solid state pulse generator with constant output width, for variable input width, in nanosecond range Patent  
 [NASA-CASE-XGS-03427] c 10 N71-23029  
 Sidereal frequency generator Patent  
 [NASA-CASE-XGS-02610] c 14 N71-23174  
 Solar cell and circuit array and process for nullifying magnetic fields Patent  
 [NASA-CASE-XGS-03390] c 03 N71-23187  
 Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent  
 [NASA-CASE-XGS-03632] c 09 N71-23311  
 Sealed electrochemical cell provided with a flexible casing Patent  
 [NASA-CASE-XGS-01513] c 03 N71-23336  
 Digitally controlled frequency synthesizer Patent  
 [NASA-CASE-XGS-02317] c 09 N71-23525  
 Radio frequency coaxial high pass filter Patent  
 [NASA-CASE-XGS-01418] c 09 N71-23573  
 Apparatus for phase stability determination Patent  
 [NASA-CASE-XGS-01118] c 10 N71-23862  
 Tape recorder Patent  
 [NASA-CASE-XGS-08259] c 14 N71-23698  
 Balance torque meter Patent  
 [NASA-CASE-XGS-01013] c 14 N71-23725  
 Mechanical actuator Patent  
 [NASA-CASE-XGS-04548] c 15 N71-24045  
 Selective plating of etched circuits without removing previous plating Patent  
 [NASA-CASE-XGS-03120] c 15 N71-24047  
 Alkali metal silicate protective coating Patent  
 [NASA-CASE-XGS-04799] c 18 N71-24183  
 Strain gauge measuring techniques Patent  
 [NASA-CASE-XGS-04478] c 14 N71-24233  
 Electromagnetic polarization systems and methods Patent  
 [NASA-CASE-GSC-10021-1] c 09 N71-24595  
 Redundant actuating mechanism Patent  
 [NASA-CASE-XGS-08718] c 15 N71-24600  
 Satellite communication system and method Patent  
 [NASA-CASE-GSC-10118-1] c 07 N71-24621  
 Programmable telemetry system Patent  
 [NASA-CASE-GSC-10131-1] c 07 N71-24624  
 Coulometer and third electrode battery charging circuit Patent  
 [NASA-CASE-GSC-10487-1] c 03 N71-24719

Electronic scanning of 2-channel monopulse patterns Patent  
 [NASA-CASE-GSC-10299-1] c 09 N71-24804  
 Annular slit collimator Patent  
 [NASA-CASE-GSC-10709-1] c 28 N71-25213  
 Voltage to frequency converter Patent  
 [NASA-CASE-GSC-10022-1] c 10 N71-25882  
 Direct current motor with stationary armature and field Patent  
 [NASA-CASE-XGS-05280] c 09 N71-25999  
 Buck boost voltage regulation circuit Patent  
 [NASA-CASE-GSC-10735-1] c 10 N71-26085  
 Adaptive system and method for signal generation Patent  
 [NASA-CASE-GSC-11387] c 10 N71-26374  
 Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent  
 [NASA-CASE-XGS-04224] c 10 N71-26418  
 Turn on transient limiter Patent  
 [NASA-CASE-GSC-10413] c 10 N71-26531  
 Voltage regulator with plural parallel power source sections Patent  
 [NASA-CASE-GSC-10891-1] c 10 N71-26626  
 Method for generating ultra-precise angles Patent  
 [NASA-CASE-XGS-04173] c 19 N71-26674  
 Resettable monostable pulse generator Patent  
 [NASA-CASE-GSC-11139] c 09 N71-27016  
 Micro-pound extended range thrust stand Patent  
 [NASA-CASE-GSC-10710-1] c 28 N71-27094  
 Synchronous dc direct drive system Patent  
 [NASA-CASE-GSC-10065-1] c 10 N71-27138  
 Antenna array at focal plane of reflector with coupling network for beam switching Patent  
 [NASA-CASE-GSC-10220-1] c 07 N71-27233  
 Gravity gradient attitude control system Patent  
 [NASA-CASE-GSC-10555-1] c 21 N71-27324  
 Segmented superconducting magnet for a broadband traveling wave maser Patent  
 [NASA-CASE-XGS-10518] c 18 N71-28554  
 Millimeter wave antenna system Patent Application  
 [NASA-CASE-GSC-10949-1] c 07 N71-28985  
 Sampled data controller Patent  
 [NASA-CASE-GSC-10554-1] c 08 N71-29033  
 Variable digital processor including a register for shifting and rotating bits in either direction Patent  
 [NASA-CASE-GSC-10186] c 08 N71-33110  
 Combustion products generating and metering device  
 [NASA-CASE-GSC-11095-1] c 14 N71-10375  
 Analog spatial maneuver computer  
 [NASA-CASE-GSC-10880-1] c 08 N71-11172  
 Helical recorder arrangement for multiple channel recording on both sides of the tape  
 [NASA-CASE-GSC-10614-1] c 09 N71-11224  
 Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence  
 [NASA-CASE-GSC-11133-1] c 23 N71-11568  
 Position location system and method  
 [NASA-CASE-GSC-10087-3] c 07 N71-12080  
 Facsimile video remodulation network  
 [NASA-CASE-GSC-10185-1] c 07 N71-12081  
 Frangible electrochemical cell  
 [NASA-CASE-XGS-10010] c 03 N71-15986  
 Caterpillar micro positioner  
 [NASA-CASE-GSC-10780-1] c 14 N71-16283  
 Minimech self-deploying boom mechanism  
 [NASA-CASE-GSC-10568-1] c 15 N71-18477  
 Heated porous plug microthruster  
 [NASA-CASE-GSC-10640-1] c 28 N71-18766  
 Optimum performance spacecraft solar cell system  
 [NASA-CASE-GSC-10669-1] c 03 N71-20031  
 Monostable multivibrator  
 [NASA-CASE-GSC-10082-1] c 10 N71-20221  
 Roll alignment detector  
 [NASA-CASE-GSC-10514-1] c 14 N71-20379  
 Cosmic dust sensor  
 [NASA-CASE-GSC-10503-1] c 14 N71-20381  
 Solenoid valve including guide for armature and valve member  
 [NASA-CASE-GSC-10607-1] c 15 N71-20442  
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 [NASA-CASE-GSC-10878-1] c 10 N71-22236  
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 Resistance soldering apparatus  
 [NASA-CASE-GSC-10913] c 15 N71-22491  
 Optical system support apparatus  
 [NASA-CASE-XER-07896-2] c 23 N71-22673  
 SCR lamp driver  
 [NASA-CASE-GSC-10221-1] c 09 N71-23171  
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 [NASA-CASE-GSC-10381-1] c 18 N71-23581  
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[NASA-CASE-LEW-13773-2] c 35 N84-32782  
Negative electrode catalyst for the iron-chromium REDOX energy storage system  
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[NASA-CASE-LEW-13524-1] c 07 N84-33410  
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[NASA-CASE-LEW-13495-1] c 33 N84-33663  
Diesel engine catalytic combustor system  
[NASA-CASE-LEW-12995-1] c 37 N84-33808  
National Aeronautics and Space Administration.  
Manned Spacecraft Center, Cape Canaveral, Fla.  
Electrode for biological recording  
[NASA-CASE-XMS-02872] c 05 N89-21925  
National Aeronautics and Space Administration.  
Manned Spacecraft Center, Langley Station, Va.  
Plural recorder system  
[NASA-CASE-XMS-06949] c 09 N89-21487  
National Aeronautics and Space Administration.  
Marshall Space Flight Center, Huntsville, Ala.  
Electrical feed-through connection for printed circuit boards and printed cable  
[NASA-CASE-XMF-01483] c 14 N89-27431  
Method for detecting hydrogen gas  
[NASA-CASE-XMF-03873] c 06 N89-39733  
Electrical connector Patent Application  
[NASA-CASE-MFS-14741] c 09 N70-20737  
Angular measurement system Patent  
[NASA-CASE-XMF-00447] c 14 N70-33179  
Insulating structure Patent  
[NASA-CASE-XMF-00341] c 15 N70-33323  
Space vehicle electrical system Patent  
[NASA-CASE-XMF-00517] c 03 N70-34157  
Pivotal shock absorbing pad assembly Patent  
[NASA-CASE-XMF-03856] c 31 N70-34159  
Gimbaled, partially submerged rocket nozzle Patent  
[NASA-CASE-XMF-01544] c 28 N70-34162  
Recoverable rocket vehicle Patent  
[NASA-CASE-XMF-00389] c 31 N70-34176  
Electrical discharge apparatus for forming Patent  
[NASA-CASE-XMF-00375] c 15 N70-34249  
Optical inspection apparatus Patent  
[NASA-CASE-XMF-00482] c 14 N70-34298  
Relay binary circuit Patent  
[NASA-CASE-XMF-00421] c 09 N70-34502  
Attitude and propellant flow control system and method Patent  
[NASA-CASE-XMF-00185] c 21 N70-34539  
Electrical connector for flat cables Patent  
[NASA-CASE-XMF-00324] c 09 N70-34598  
Externally pressurized fluid bearing Patent  
[NASA-CASE-XMF-00515] c 15 N70-34684  
Force measuring instrument Patent  
[NASA-CASE-XMF-00456] c 14 N70-34705  
Seismic displacement transducer Patent  
[NASA-CASE-XMF-00479] c 14 N70-34794  
Electric arc welding Patent  
[NASA-CASE-XMF-00392] c 15 N70-34814  
Assembly for recovering a capsule Patent  
[NASA-CASE-XMF-00641] c 31 N70-38410  
Printed cable connector Patent  
[NASA-CASE-XMF-00369] c 09 N70-38494  
Landing pad assembly for aerospace vehicles Patent  
[NASA-CASE-XMF-02853] c 31 N70-38654  
Electric arc driven wind tunnel Patent  
[NASA-CASE-XMF-00411] c 11 N70-38913  
Gravity device Patent  
[NASA-CASE-XMF-00424] c 11 N70-38198  
Injector for bipropellant rocket engines Patent  
[NASA-CASE-XMF-00148] c 28 N70-38710  
Electronic motor control system Patent  
[NASA-CASE-XMF-01129] c 09 N70-38712  
Slosh suppressing device and method Patent  
[NASA-CASE-XMF-00658] c 12 N70-38997  
Air bearing Patent  
[NASA-CASE-XMF-00336] c 15 N70-39898  
Instrument support with precise lateral adjustment Patent  
[NASA-CASE-XMF-00480] c 14 N70-39898  
Segmented back-up bar Patent  
[NASA-CASE-XMF-00640] c 15 N70-39924  
Collapsible loop antenna for space vehicle Patent  
[NASA-CASE-XMF-00437] c 07 N70-40202  
Flexible back-up bar Patent  
[NASA-CASE-XMF-00722] c 15 N70-40204  
Electro-optical alignment control system Patent  
[NASA-CASE-XMF-00908] c 14 N70-40238  
Missile launch release system Patent  
[NASA-CASE-XMF-03198] c 30 N70-40353  
Double-acting shock absorber Patent  
[NASA-CASE-XMF-01045] c 15 N70-40354  
Portable alignment tool Patent  
[NASA-CASE-XMF-01452] c 15 N70-41371  
Device for suppressing sound and heat produced by high-velocity exhaust jets Patent  
[NASA-CASE-XMF-01813] c 28 N70-41582  
Unfired-ceramic flame-resistant insulation and method of making the same Patent  
[NASA-CASE-XMF-01030] c 18 N70-41583  
Pulse counting circuit which simultaneously indicates the occurrence of the nth pulse Patent  
[NASA-CASE-XMF-00906] c 09 N70-41655  
Support apparatus for dynamic testing Patent  
[NASA-CASE-XMF-01772] c 11 N70-41677  
Locking device with rolling detents Patent  
[NASA-CASE-XMF-01371] c 15 N70-41829  
Tank construction for space vehicles Patent  
[NASA-CASE-XMF-01899] c 31 N70-41948  
Positive displacement flowmeter Patent  
[NASA-CASE-XMF-02822] c 14 N70-41994  
Hydraulic support for dynamic testing Patent  
[NASA-CASE-XMF-03248] c 11 N71-10604  
Fiber optic vibration transducer and analyzer Patent  
[NASA-CASE-XMF-02433] c 14 N71-10618  
Method and means for damping rotation in a satellite Patent  
[NASA-CASE-XMF-00442] c 31 N71-10747  
Heat pipe thermionic diode power system Patent  
[NASA-CASE-XMF-05843] c 03 N71-11055  
Synthesis of siloxane-containing epoxy polymers Patent  
[NASA-CASE-MFS-13994-1] c 08 N71-11240  
Bi-carrier demodulator with modulation Patent  
[NASA-CASE-XMF-01160] c 07 N71-11298  
Harness assembly Patent  
[NASA-CASE-MFS-14871] c 05 N71-12341  
Magnetic matrix memory system Patent  
[NASA-CASE-XMF-05835] c 08 N71-12504  
Pulse amplitude and width detector Patent  
[NASA-CASE-XMF-06519] c 09 N71-12519  
Microwave power receiving antenna Patent  
[NASA-CASE-MFS-20333] c 08 N71-13486  
Hybrid holographic system using reflected and transmitted object beams simultaneously Patent  
[NASA-CASE-MFS-20074] c 16 N71-15565  
Reactance control system Patent  
[NASA-CASE-XMF-01598] c 21 N71-15583  
Apparatus for welding torch angle and seam tracking control Patent  
[NASA-CASE-XMF-03287] c 15 N71-15607  
Multway vortex valve system Patent  
[NASA-CASE-XMF-04709] c 15 N71-15609  
Injector assembly for liquid fueled rocket engines Patent  
[NASA-CASE-XMF-00968] c 28 N71-15680  
Space capsule ejection assembly Patent  
[NASA-CASE-XMF-03169] c 31 N71-15675  
Air cushion lift pad Patent  
[NASA-CASE-MFS-14685] c 31 N71-15689  
Method of making a molded connector Patent  
[NASA-CASE-XMF-03488] c 15 N71-15986  
Regenerative braking system Patent  
[NASA-CASE-XMF-01096] c 10 N71-16030  
Condition and condition duration indicator Patent  
[NASA-CASE-XMF-01097] c 10 N71-16058  
Method and apparatus for securing to a spacecraft Patent  
[NASA-CASE-MFS-11133] c 31 N71-16222  
Method and apparatus of simulating zero gravity conditions Patent  
[NASA-CASE-MFS-12750] c 27 N71-16223  
Passive optical wind and turbulence detection system Patent  
[NASA-CASE-XMF-14032] c 20 N71-16340  
Serpentator Patent  
[NASA-CASE-XMF-05344] c 31 N71-16345  
Gravimeter Patent  
[NASA-CASE-XMF-05844] c 14 N71-17587  
High pressure gas filter system Patent  
[NASA-CASE-MFS-12806] c 14 N71-17588  
Burst diaphragm flow initiator Patent  
[NASA-CASE-MFS-12915] c 11 N71-17600  
Vacuum deposition apparatus Patent  
[NASA-CASE-XMF-01667] c 15 N71-17647  
Quick disconnect latch and handle combination Patent  
[NASA-CASE-MFS-11132] c 15 N71-17649  
Method and apparatus for precision sizing and joining of large diameter tubes Patent  
[NASA-CASE-XMF-05114] c 15 N71-17650  
Low temperature flexure fatigue cryostat Patent  
[NASA-CASE-XMF-02964] c 14 N71-17659  
Precision stepping drive Patent  
[NASA-CASE-MFS-14772] c 15 N71-17692  
Multi-mission module Patent  
[NASA-CASE-XMF-01543] c 31 N71-17730  
Ratchet mechanism Patent  
[NASA-CASE-XMF-12805] c 15 N71-17805  
Method of making impurity-type semiconductor electrical contacts Patent  
[NASA-CASE-XMF-01018] c 26 N71-17818  
Apparatus for the determination of the existence or non-existence of a bonding between two members Patent  
[NASA-CASE-MFS-13686] c 15 N71-18132  
Static inverters which sum a plurality of waves Patent  
[NASA-CASE-XMF-00683] c 08 N71-18752  
Space environmental work simulator Patent  
[NASA-CASE-XMF-07488] c 11 N71-18773  
Space manufacturing machine Patent  
[NASA-CASE-MFS-20410] c 15 N71-19214  
Extensometer Patent  
[NASA-CASE-XMF-04680] c 15 N71-19489  
Mechanical simulator of low gravity conditions Patent  
[NASA-CASE-MFS-10555] c 11 N71-19494  
Weld control system using thermocouple wire Patent  
[NASA-CASE-MFS-06074] c 15 N71-20393  
Evaporant source for vapor deposition Patent  
[NASA-CASE-XMF-06065] c 15 N71-20395  
Satellite despin device Patent  
[NASA-CASE-XMF-08523] c 31 N71-20396  
Method of coating circuit paths on printed circuit boards with solder Patent  
[NASA-CASE-XMF-01599] c 09 N71-20705  
Elastomeric silazane polymers and process for preparing the same Patent  
[NASA-CASE-XMF-04133] c 06 N71-20717  
Method of producing alternating ether siloxane copolymers Patent  
[NASA-CASE-XMF-02584] c 08 N71-20905  
Honeycomb panel and method of making same Patent  
[NASA-CASE-XMF-01402] c 18 N71-21651  
Portable milling tool Patent  
[NASA-CASE-XMF-03511] c 15 N71-22799  
Energy absorbing device Patent  
[NASA-CASE-XMF-10040] c 15 N71-22877

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Adaptive tracking notch filter system Patent [NASA-CASE-XMF-01892] c 10 N71-22986	Cryogenic thermal insulation Patent [NASA-CASE-XMF-05048] c 33 N71-28892	Device and method for determining X ray reflection efficiency of optical surfaces [NASA-CASE-MFS-20243] c 23 N73-13662	
Meteorological balloon Patent [NASA-CASE-XMF-04163] c 02 N71-23007	Method of coating through-holes Patent [NASA-CASE-XMF-05999] c 15 N71-29032	Process for making diamonds [NASA-CASE-MFS-20688-2] c 15 N73-19457	
Continuous turning slip ring assembly Patent [NASA-CASE-XMF-01049] c 15 N71-23049	Response analyzers for sensors Patent [NASA-CASE-MFS-11204] c 14 N71-29134	Test stand system for vacuum chambers [NASA-CASE-MFS-21362] c 11 N73-20267	
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Positive dc to positive dc converter Patent [NASA-CASE-XMF-14301] c 09 N71-23188	Nuclear mass flowmeter [NASA-CASE-MFS-20485] c 14 N72-11365	Ratemeter [NASA-CASE-MFS-20418] c 14 N73-24473	
Zero gravity apparatus Patent [NASA-CASE-XMF-06515] c 14 N71-23227	Fine adjustment mount [NASA-CASE-MFS-20249] c 15 N72-11388	Underwater space suit pressure control regulator [NASA-CASE-MFS-20332-2] c 05 N73-25125	
Positive dc to negative dc converter Patent [NASA-CASE-XMF-08217] c 03 N71-23239	Method of making foamed materials in zero gravity [NASA-CASE-XMF-09902] c 15 N72-11387	Maxometers (peak wind speed anemometers) [NASA-CASE-MFS-20916] c 14 N73-25460	
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Electron beam instrument for measuring electric fields Patent [NASA-CASE-XMF-10269] c 14 N71-23699	Apparatus for obtaining isotropic irradiation of a specimen [NASA-CASE-MFS-20095] c 24 N72-11595	Wide temperature range electronic device with lead attachment [NASA-CASE-ERC-10224-2] c 09 N73-27150	
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National Aeronautics and Space Administration, Pasadena Office, Calif.								
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Distributed multipoint memory architecture					
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Photoelectrochemical electrodes					
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Corrosion resistant coating					
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Laser activated MTOs microwave device					
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Protective telescoping shield for solar concentrator					
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Nanosequencer digital logic controller					
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Low-frequency radio navigation system					
[NASA-CASE-NPO-15264-1]	c 04	N84-27713			
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Shaft transducer having dc output proportional to angular velocity					
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FET charge sensor and voltage probe					
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Portable reflectance spectrometer					
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Means and method for calibrating a photon detector utilizing electron-photon coincidence					
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Phase sensitive guidance sensor for wire-following vehicles					
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System for indicating fuel-efficient aircraft altitude					
[NASA-CASE-NPO-15351-2]	c 06	N84-34443			
Pipelined digital SAR azimuth correlator using hybrid FFT-transversal filter					
[NASA-CASE-NPO-15519-1]	c 32	N84-34651			
Correlation spectrometer having high resolution and multiplexing capability					
[NASA-CASE-NPO-15558-1]	c 35	N84-34705			
Saltless solar pond					
[NASA-CASE-NPO-15808-1]	c 44	N84-34782			
Epitaxial thinning process					
[NASA-CASE-NPO-15788-1]	c 76	N84-35112			
Process and apparatus for growing a crystal ribbon					
[NASA-CASE-NPO-15629-1]	c 76	N84-35113			
National Aeronautics and Space Administration, Wallops Flight Center, Wallops Island, Va.					
Thin film strain transducer					
[US-PATENT-APPL-SN-526770]	c 35	N84-12448			
Thin film strain transducer					
[NASA-CASE-WLP-10055-1]	c 35	N84-28015			
National Aeronautics and Space Administration, Western Operations Office, Santa Monica, Calif.					
Automatic pump Patent					
[NASA-CASE-XNP-04731]	c 15	N71-24042			
National Bureau of Standards, Boulder, Colo.					
Densitometer Patent					
[NASA-CASE-XLE-00688]	c 14	N70-41330			
National Oceanic and Atmospheric Administration, Boulder, Colo.					
Determining distance to lightning strokes from a single station					
[NASA-CASE-KSC-10698]	c 07	N73-20175			
National Research Corp., Cambridge, Mass.					
Gauge calibration by diffusion					
[NASA-CASE-XGS-07752]	c 14	N73-30390			
Ultrahigh vacuum measuring ionization gauge					
[NASA-CASE-XLA-05087]	c 14	N73-30391			
Apparatus for absolute pressure measurement					
[NASA-CASE-LAR-10000]	c 14	N73-30394			
Ultrahigh vacuum gauge having two collector electrodes					
[NASA-CASE-LAR-02743]	c 14	N73-32324			
Rock sampling					
[NASA-CASE-XNP-10007-1]	c 46	N74-23068			
Rock sampling					
[NASA-CASE-XNP-09755]	c 46	N74-23069			
National Science Foundation, Washington, D.C.					
Laser apparatus					
[NASA-CASE-GSC-12237-1]	c 36	N80-14384			
Nevada Univ. System, Reno.					
Constant-output atomizer					
[NASA-CASE-MFS-25631-1]	c 34	N84-12406			
New England Medical Center Hospitals, Boston, Mass.					
Determination of antimicrobial susceptibilities on infected urines without isolation					
[NASA-CASE-GSC-12046-1]	c 52	N79-14750			
North American Aviation, Inc., Canoga Park, Calif.					
Method of joining aluminum to stainless steel Patent					
[NASA-CASE-MFS-07369]	c 15	N71-20443			
Propellant mass distribution metering apparatus Patent					
[NASA-CASE-NPO-10185]	c 10	N71-26339			
Safety-type locking pin					
[NASA-CASE-MFS-18495]	c 15	N72-11385			
Hydrogen fire detection system with logic circuit to analyze the spectrum of temporal variations of the optical spectrum					
[NASA-CASE-MFS-13130]	c 10	N72-17173			
North American Aviation, Inc., Downey, Calif.					
Heat shield oven					
[NASA-CASE-XMS-04318]	c 15	N69-27871			
Extensible cable support Patent					
[NASA-CASE-XMF-07587]	c 15	N71-18701			
High pressure air valve Patent					
[NASA-CASE-MSC-11010]	c 15	N71-19485			
Load relieving device Patent					
[NASA-CASE-XMS-06329-1]	c 15	N71-20441			
Optical projector system Patent					
[NASA-CASE-XNP-03853]	c 23	N71-21882			
Brazing alloy Patent					
[NASA-CASE-XNP-03063]	c 17	N71-23385			
Vibrophonocardiograph Patent					
[NASA-CASE-XFR-07172]	c 05	N71-27234			
North American Aviation, Inc., El Segundo, Calif.					
Aerodynamic spike nozzle Patent					
[NASA-CASE-XGS-01143]	c 31	N71-15847			
Expanding center probe and drogue Patent					
[NASA-CASE-XMS-03613]	c 31	N71-16346			
Radio frequency shielded enclosure Patent					
[NASA-CASE-XMF-09422]	c 07	N71-19436			
High impedance measuring apparatus Patent					
[NASA-CASE-XMS-08589-1]	c 09	N71-20569			
Latching mechanism Patent					
[NASA-CASE-XMS-03745]	c 15	N71-21076			
Tube dimpling tool Patent					
[NASA-CASE-XMS-06876]	c 15	N71-21536			
Positive locking check valve Patent					
[NASA-CASE-XMS-09310]	c 15	N71-22706			
Etching of aluminum for bonding Patent					
[NASA-CASE-XMF-02303]	c 17	N71-23828			
Method and apparatus for varying thermal conductivity Patent					
[NASA-CASE-XNP-05524]	c 33	N71-24876			

Purge device for thrust engines Patent  
[NASA-CASE-XMS-04826] c 28 N71-28849

Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent  
[NASA-CASE-XNP-01310] c 33 N71-28852

Propellant tank pressurization system Patent  
[NASA-CASE-XNP-00850] c 27 N71-28929

Spherical shield Patent  
[NASA-CASE-XNP-01855] c 15 N71-28937

Universal restrainer and joint Patent  
[NASA-CASE-XNP-02278] c 15 N71-28951

Method and device for cooling Patent  
[NASA-CASE-HQN-00938] c 33 N71-29053

North American Aviation, Inc., Los Angeles, Calif.  
Method and system for respiration analysis Patent  
[NASA-CASE-XFR-08403] c 05 N71-11202

North American Aviation, Inc., Torrance, Calif.  
Method and apparatus for detection and location of microleaks Patent  
[NASA-CASE-XMF-02307] c 14 N71-10779

North American Aviation, Inc., Woodland Hills, Calif.  
Fluid pressure balanced seal  
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North American Phillips Co., Inc., Briarcliff Manor, N. Y.  
Linear magnetic bearings  
[NASA-CASE-GSC-12582-2] c 37 N83-13460

North American Phillips Co., Inc., Tarrytown, N. Y.  
Linear magnetic bearings  
[NASA-CASE-GSC-12582-1] c 37 N81-16469

Reciprocating linear motor  
[NASA-CASE-GSC-12773-1] c 33 N83-12332

North American Rockwell Corp., Canoga Park, Calif.  
Noncontaminating swabs  
[NASA-CASE-MFS-18100] c 15 N72-11390

Observation window for a gas confining chamber  
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Droplet monitoring probe  
[NASA-CASE-NPO-10985] c 14 N73-20478

Circuit board package with wedge shaped covers  
[NASA-CASE-MFS-21919-1] c 10 N73-25243

Heat flow calorimeter  
[NASA-CASE-GSC-11434-1] c 34 N74-27859

North American Rockwell Corp., Downey, Calif.  
Spacecraft Patent  
[NASA-CASE-MS-13047-1] c 31 N71-25434

Latching mechanism Patent  
[NASA-CASE-MS-15474-1] c 15 N71-26162

Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent  
[NASA-CASE-XMF-02221] c 18 N71-27170

Frangible link  
[NASA-CASE-MS-11849-1] c 15 N72-22488

Impact monitoring apparatus  
[NASA-CASE-MS-15826-1] c 14 N72-25411

Bonding or repairing process  
[NASA-CASE-MS-12357] c 15 N73-12489

Self-cycling fluid heater  
[NASA-CASE-MS-15567-1] c 33 N73-16918

Phase protection system for ac power lines  
[NASA-CASE-MS-17832-1] c 33 N74-14956

Apparatus for remote handling of materials  
[NASA-CASE-LAR-10634-1] c 37 N74-18123

Grain refinement control in TIG arc welding  
[NASA-CASE-MS-19095-1] c 37 N75-19683

North American Rockwell Corp., El Segundo, Calif.  
Apparatus for testing wiring harness by vibration generating means  
[NASA-CASE-MS-15158-1] c 14 N72-17325

North American Rockwell Corp., Los Angeles, Calif.  
Tactile sensing means for prosthetic limbs  
[NASA-CASE-MFS-16570-1] c 05 N73-32013

North Carolina State Univ., Raleigh.  
Thermal shock resistant hafnia ceramic material  
[NASA-CASE-LAR-10894-1] c 18 N73-14584

Thermal shock and erosion resistant tantalum carbide ceramic material  
[NASA-CASE-LAR-11902-1] c 27 N78-17206

Northeastern Univ., Boston, Mass.  
Pulse-width modulation multiplier Patent  
[NASA-CASE-XER-09213] c 07 N71-12390

Northrop Corp., Hawthorne, Calif.  
Shock tube bypass piston tunnel  
[NASA-CASE-NPO-12109] c 11 N72-22245

Folding structure fabricated of rigid panels  
[NASA-CASE-XHQ-02148] c 18 N75-27040

Northrop Nortronics, Palos Verdes Peninsula, Calif.  
Method of making dry electrodes  
[NASA-CASE-FRC-10029-2] c 05 N72-25121

Valve seat  
[NASA-CASE-NPO-10606] c 15 N72-25451

Northrop Space Labs., Hawthorne, Calif.  
Method of evaluating moisture barrier properties of encapsulating materials Patent  
[NASA-CASE-NPO-10051] c 18 N71-24934

Nortronics, Palos Verdes Peninsula, Calif.  
Flexible conductive disc electrode Patent  
[NASA-CASE-FRC-10029] c 09 N71-24618

Gas low pressure low flow rate metering system Patent  
[NASA-CASE-FRC-10022] c 12 N71-26546

Method of removing insulated material from insulated wires  
[NASA-CASE-FRC-10038] c 15 N72-20444

Notre Dame Univ., Ind.  
Synthesis of polymeric Schiff bases by Schiff-base exchange reactions Patent  
[NASA-CASE-XMF-08651] c 06 N71-11236

Direct synthesis of polymeric Schiff bases from two amines and two aldehydes Patent  
[NASA-CASE-XMF-08655] c 06 N71-11239

Azine polymers and process for preparing the same Patent  
[NASA-CASE-XMF-08656] c 06 N71-11242

Synthesis of polymeric Schiff bases by reaction of acetals and amine compounds Patent  
[NASA-CASE-XMF-08652] c 06 N71-11243

Aromatic diamine-aromatic dialdehyde high molecular weight Schiff base polymers prepared in a monofunctional Schiff base Patent  
[NASA-CASE-XMF-03074] c 06 N71-24740

## O

Oakland Univ., Rochester, Mich.  
Optical process for producing classification maps from multispectral data  
[NASA-CASE-MS-14472-1] c 43 N77-10584

Interactive color display for multispectral imagery using correlation clustering  
[NASA-CASE-MS-16253-1] c 32 N79-20297

Occidental Research Corp., La Verne, Calif.  
Process for preparing higher oxides of the alkali and alkaline earth metals  
[NASA-CASE-ARC-10992-1] c 26 N78-32229

Ohio State Univ., Columbus.  
Horn antenna having V-shaped corrugated slots  
[NASA-CASE-LAR-11112-1] c 32 N78-15330

Distributed-switch Dicke radiometers  
[NASA-CASE-GSC-12219-1] c 35 N80-18359

Old Dominion Univ., Norfolk, Va.  
Instrumentation for measuring aircraft noise and sonic boom  
[NASA-CASE-LAR-11478-1] c 07 N76-27232

Differential sound level meter  
[NASA-CASE-LAR-12106-1] c 71 N78-14867

High-temperature microphone system  
[NASA-CASE-LAR-12375-1] c 32 N79-24203

Aerodynamic side-force alleviator means  
[NASA-CASE-LAR-12326-1] c 02 N81-14968

Leading edge vortex flaps for drag reduction  
[NASA-CASE-LAR-12750-1] c 02 N81-19016

Oregon Univ., Portland.  
Method for separating biological cells  
[NASA-CASE-MFS-23883-1] c 51 N80-16715

Organon Diagnostica, El Monte, Calif.  
Water system virus detection  
[NASA-CASE-MS-16098-1] c 51 N79-10693

## P

Packard-Bell Electronics Corp., Newbury Park, Calif.  
Optical alignment system Patent  
[NASA-CASE-XNP-02029] c 14 N70-41955

Pan American World Airways, Inc., New York.  
Self-charging metering and dispensing device for fluids  
[NASA-CASE-MS-20275-1] c 35 N83-17856

Pansura Corp., Pennsauken, N. J.  
Method of forming transparent films of ZnO  
[NASA-CASE-FRC-10019] c 15 N73-12487

PCR, Inc., Gainesville, Fla.  
Perfluoroalkyl polytriazines containing pendant iododifluoromethyl groups  
[NASA-CASE-ARC-11241-1] c 25 N81-14016

Peninsular ChemResearch, Inc., Gainesville, Fla.  
Hydroxy terminated perfluoro ethers Patent  
[NASA-CASE-NPO-10788] c 06 N71-27254

Perfluoro polyether acyl fluorides  
[NASA-CASE-NPO-10765] c 06 N72-20121

Polyurethane resins from hydroxy terminated perfluoro ethers  
[NASA-CASE-NPO-10788-2] c 06 N72-27144

Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-2] c 06 N72-27151

Highly fluorinated polyurethanes  
[NASA-CASE-NPO-10767-1] c 06 N73-33076

Pennsylvania State Univ., University Park.  
Process for the preparation of polycarbonylphosphazenes  
[NASA-CASE-ARC-11178-2] c 27 N81-27271

Carboranylcydlophosphazenes and their polymers  
[NASA-CASE-ARC-11178-1] c 27 N82-18389

Carboranyl(methylene-substituted phosphazenes and polymers thereof  
[NASA-CASE-ARC-11370-1] c 27 N84-22750

Philco-Ford Corp., Houston, Tex.  
Frequency modulation demodulator threshold extension device Patent  
[NASA-CASE-MS-12165-1] c 07 N71-33696

Philco-Ford Corp., Newport Beach, Calif.  
Mechanically extendible telescoping boom  
[NASA-CASE-NPO-11118] c 03 N72-25021

Philco-Ford Corp., Palo Alto, Calif.  
Composite antenna lead  
[NASA-CASE-GSC-11046-1] c 07 N73-28013

Amplitude steered array  
[NASA-CASE-GSC-11448-1] c 33 N74-20880

Phoenix Corp., McLean, Va.  
External bulb variable volume maser  
[NASA-CASE-GSC-12334-1] c 38 N79-14382

Off-axis coherently pumped laser  
[NASA-CASE-GSC-12592-1] c 36 N84-28065

Pittsburgh Univ., Pa.  
Method and device for the detection of phenol and related compounds  
[NASA-CASE-LEW-12513-1] c 25 N79-22235

Planning Research Corp., McLean, Va.  
Telephone multiline signaling using common signal pair  
[NASA-CASE-KSC-11023-1] c 32 N79-23310

Pratt and Whitney Aircraft, East Hartford, Conn.  
Liquid-gas separation system Patent  
[NASA-CASE-XMS-01824] c 15 N70-40062

Vibration damping system Patent  
[NASA-CASE-XMS-01820] c 23 N71-15673

Vapor pressure measuring system and method Patent  
[NASA-CASE-XMS-01618] c 14 N71-20741

Sealing member and combination thereof and method of producing said sealing member Patent  
[NASA-CASE-XMS-01825] c 15 N71-23022

## Q

Quantum Dynamics, Tazana, Calif.  
Respiratory analysis system and method  
[NASA-CASE-MS-13436-1] c 05 N73-32015

## R

Radiation, Inc., Melbourne, Fla.  
Remote platform power conserving system  
[NASA-CASE-GSC-11182-1] c 15 N75-13007

Radiation Instrument Development Lab., Inc., Melrose Park, Ill.  
High speed binary to decimal conversion system Patent  
[NASA-CASE-XGS-01230] c 08 N71-19544

Radiation Systems, Inc., McLean, Va.  
Monopulse tracking system Patent  
[NASA-CASE-XGS-01155] c 10 N71-21483

Radio Corp. of America, Lancaster, Pa.  
Bonding graphite with fused silver chloride  
[NASA-CASE-XGS-00963] c 15 N69-39735

Radio Corp. of America, New York.  
Water cooled contactor for anode in carbon arc mechanism  
[NASA-CASE-XMS-03700] c 15 N69-24266

Apparatus for ballasting high frequency transistors  
[NASA-CASE-XGS-05003] c 09 N69-24318

Helical coaxial resonator RF filter  
[NASA-CASE-XGS-02816] c 07 N69-24323

Radiation resistant silicon semiconductor devices Patent  
[NASA-CASE-XGS-07801] c 09 N71-12513

GaAs solar detector using manganese as a doping agent Patent  
[NASA-CASE-XNP-01326] c 26 N71-18064

Thermocouple assembly Patent  
[NASA-CASE-XNP-01659] c 14 N71-23039

Method of erasing target material of a vidicon tube or the like Patent  
[NASA-CASE-XNP-06028] c 09 N71-23189

Transient augmentation circuit for pulse amplifiers Patent  
[NASA-CASE-XNP-01088] c 10 N71-28739

Radio Corp. of America, Princeton, N. J.  
Connector strips-positive, negative and T tabs  
[NASA-CASE-XGS-01395] c 03 N69-21539

Solar cell including second surface mirrors Patent  
[NASA-CASE-NPO-10109] c 03 N71-11049

Collapsible reflector Patent  
[NASA-CASE-XMS-03454] c 09 N71-20658  
Simple method of making photovoltaic junctions Patent  
[NASA-CASE-XNP-01960] c 09 N71-23027  
Method of electrolytically binding a layer of semiconductors together Patent  
[NASA-CASE-XNP-01959] c 26 N71-23043  
Method and apparatus for distillation of liquids Patent  
[NASA-CASE-XNP-08124] c 15 N71-27184  
Maximum power point tracker Patent  
[NASA-CASE-GSC-10376-1] c 14 N71-27407  
Method of changing the conductivity of vapor deposited gallium arsenide by the introduction of water into the vapor deposition atmosphere Patent  
[NASA-CASE-XNP-01961] c 26 N71-29156  
Radial heat flux transformer  
[NASA-CASE-NPO-10828] c 33 N72-17948  
Target acquisition antenna  
[NASA-CASE-GSC-10064-1] c 10 N72-22235  
Method for distillation of liquids  
[NASA-CASE-XNP-08124-2] c 06 N73-13129  
Hermetically sealed semiconductor  
[NASA-CASE-GSC-10791-1] c 15 N73-14469  
Thermal flux transfer system  
[NASA-CASE-NPO-12070-1] c 28 N73-32606  
Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly  
[NASA-CASE-GSC-11560-1] c 33 N74-20861  
Frequency measurement by coincidence detection with standard frequency  
[NASA-CASE-MS-C-14649-1] c 33 N76-16331  
Means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains  
[NASA-CASE-NPO-14298-1] c 76 N80-32244  
Apparatus for use in the production of ribbon-shaped crystals from a silicon melt  
[NASA-CASE-NPO-14297-1] c 33 N81-19389  
Television camera video level control system  
[NASA-CASE-MS-C-18578-1] c 74 N82-27121  
**RAND Corp., Santa Monica, Calif.**  
Satellite communication system Patent  
[NASA-CASE-XNP-02389] c 07 N71-28900  
**Raymond Engineering Lab., Inc., Middletown, Conn.**  
Synchronous servo loop control system Patent  
[NASA-CASE-XNP-03744] c 10 N71-20448  
**Raytheon Co., Sudbury, Mass.**  
Laser Doppler system for measuring three dimensional vector velocity Patent  
[NASA-CASE-MFS-20388] c 21 N71-19212  
Clear air turbulence detector  
[NASA-CASE-MFS-21244-1] c 36 N75-15028  
**RCA Labs., Princeton, N. J.**  
Solar cell with improved N-region contact and method of forming the same  
[NASA-CASE-NPO-14205-1] c 44 N79-31752  
**RCA Service Co., Inc., Camden, N. J.**  
Apparatus for inspecting microfilm Patent  
[NASA-CASE-MFS-20240] c 14 N71-26788  
**Rensselaer Polytechnic Inst., Troy, N. Y.**  
Coincidence apparatus for detecting particles  
[NASA-CASE-XLA-07813] c 14 N72-17328  
Dual acting slit control mechanism  
[NASA-CASE-LAR-11370-1] c 35 N80-28686  
**Research Triangle Inst., Durham, N. C.**  
Semiconductor p-n junction stress and strain sensor  
[NASA-CASE-XLA-04980] c 09 N69-27422  
**Rochester General Hospital, N. Y.**  
Prosthetic occlusive device for an internal passageway  
[NASA-CASE-MFS-25740-1] c 52 N84-11744  
**Rochester Univ., N. Y.**  
Concave grating spectrometer Patent  
[NASA-CASE-XGS-01036] c 14 N70-40003  
**Rocketdyne, Canoga Park, Calif.**  
Frequency to analog converter Patent  
[NASA-CASE-XNP-07040] c 08 N71-12500  
Load cell protection device Patent  
[NASA-CASE-XMS-06782] c 32 N71-15974  
Thermobulb mount Patent  
[NASA-CASE-NPO-10158] c 33 N71-16356  
Laminar flow enhancement Patent  
[NASA-CASE-NPO-10122] c 12 N71-17631  
Temperature sensitive flow regulator Patent  
[NASA-CASE-MFS-14259] c 15 N71-19213  
Hydrogen leak detection device Patent  
[NASA-CASE-MFS-11537] c 14 N71-20442  
Technique of elbow bending small jacketed transfer lines Patent  
[NASA-CASE-XNP-10475] c 15 N71-24679  
Gas liquefaction and dispensing apparatus Patent  
[NASA-CASE-NPO-10070] c 15 N71-27372  
Locking device for turbine rotor blades Patent  
[NASA-CASE-XNP-00816] c 28 N71-28928  
Laser camera and diffusion filter therefore Patent  
[NASA-CASE-NPO-10417] c 16 N71-33410

Hydrazinium nitroformate propellant stabilized with nitroguanidine  
[NASA-CASE-NPO-12000] c 27 N72-25699  
Hydrazinium nitroformate propellant with saturated polymeric hydrocarbon binder  
[NASA-CASE-NPO-12015] c 27 N73-16784  
Novel polymers and method of preparing same  
[NASA-CASE-NPO-10988-1] c 06 N73-32029  
Internally supported flexible duct joint  
[NASA-CASE-MFS-19183-1] c 37 N75-19686  
Method of heat treating age-hardenable alloys  
[NASA-CASE-XNP-01311] c 26 N75-29236  
Thrust measurement  
[NASA-CASE-XMS-05731] c 35 N75-29382  
Device for installing rocket engines  
[NASA-CASE-MFS-19220-1] c 20 N76-22296  
**Rockwell International Corp., Anaheim, Calif.**  
Hermetically sealable package for hybrid solid-state electronic devices and the like  
[NASA-CASE-MS-C-20181-1] c 33 N82-28549  
**Rockwell International Corp., Canoga Park, Calif.**  
Brazing alloy binder  
[NASA-CASE-XMF-05868] c 26 N75-27125  
Brazing alloy composition  
[NASA-CASE-XMF-06053] c 26 N75-27126  
Brazing alloy  
[NASA-CASE-XNP-03878] c 26 N75-27127  
Method and apparatus for vibration analysis utilizing the Mossbauer effect  
[NASA-CASE-XMF-05882] c 35 N75-27329  
Externally supported internally stabilized flexible duct joint  
[NASA-CASE-MFS-19194-1] c 37 N76-14460  
Accumulator  
[NASA-CASE-MFS-19287-1] c 34 N77-30399  
Laser extensometer  
[NASA-CASE-MFS-19259-1] c 36 N78-14380  
Stable superconducting magnet  
[NASA-CASE-XMF-05373-1] c 33 N79-21264  
**Rockwell International Corp., Downey, Calif.**  
Apparatus for positioning modular components on a vertical or overhead surface  
[NASA-CASE-LAR-11465-1] c 37 N76-21554  
Flanged major modular assembly jig  
[NASA-CASE-MS-C-19372-1] c 39 N76-31562  
Aircraft-mounted crash-activated transmitter device  
[NASA-CASE-MFS-16609-3] c 03 N76-32140  
Window defect planar mapping technique  
[NASA-CASE-MS-C-19442-1] c 74 N77-10899  
Mechanical sequencer  
[NASA-CASE-MS-C-19536-1] c 37 N77-22482  
Load regulating latch  
[NASA-CASE-MS-C-19535-1] c 37 N77-32499  
Adjustable securing base  
[NASA-CASE-MS-C-19666-1] c 37 N78-17383  
Method of producing complex aluminum alloy parts of high temper. and products thereof  
[NASA-CASE-MS-C-19693-1] c 26 N78-24333  
Flexible pile thermal barrier insulator  
[NASA-CASE-MS-C-19568-1] c 34 N78-25350  
Variable contour securing system  
[NASA-CASE-MS-C-18270-1] c 37 N78-27423  
Multi-purpose wind tunnel reaction control model block  
[NASA-CASE-MS-C-19706-1] c 09 N78-31129  
Sequencing device utilizing planetary gear set  
[NASA-CASE-MS-C-19514-1] c 37 N79-20377  
System for automatically switching transformer coupled lines  
[NASA-CASE-MS-C-16697-1] c 33 N79-28415  
Pressure limiting propellant actuating system  
[NASA-CASE-MS-C-18179-1] c 20 N80-18097  
Floating nut retention system  
[NASA-CASE-MS-C-16938-1] c 37 N80-23653  
Heat treat fixture and method of heat treating  
[NASA-CASE-LAR-11821-1] c 26 N80-28492  
Coaxial phased array antenna  
[NASA-CASE-MS-C-16800-1] c 32 N81-14187  
Installing fiber insulation  
[NASA-CASE-MS-C-16973-1] c 37 N81-14317  
Thermal barrier pressure seal  
[NASA-CASE-MS-C-18134-1] c 37 N81-15363  
Cavity-backed, micro-strip dipole antenna array  
[NASA-CASE-MS-C-18606-1] c 32 N82-11336  
Precision heat forming of tetrafluoroethylene tubing  
[NASA-CASE-MS-C-18430-1] c 37 N82-24491  
High temperature penetrator assembly with bayonet plug and ramp-activated lock  
[NASA-CASE-MS-C-18526-1] c 37 N82-24494  
A method and technique for installing light-weight fragile, high-temperature fiber insulation  
[NASA-CASE-MS-C-18934-3] c 24 N82-26387  
Spiral slotted phased antenna array  
[NASA-CASE-MS-C-18532-1] c 32 N82-27558  
Attachment system for silica tiles  
[NASA-CASE-MS-C-18741-1] c 27 N82-29456

Method for repair of thin glass coatings  
[NASA-CASE-KSC-11097-1] c 27 N82-33520  
Degassing and minding apparatus for liquids  
[NASA-CASE-MS-C-18936-1] c 35 N83-29652  
Apparatus for accurately preloading auger attachment means for fragile protective material  
[NASA-CASE-MS-C-18791-1] c 37 N83-38482  
Method and technique for installing light-weight, fragile, high-temperature fiber insulation  
[NASA-CASE-MS-C-16934-3] c 24 N84-18262  
Constant force friction damper  
[NASA-CASE-MS-C-20505-1] c 18 N84-22611  
Directional gear ratio transmissions  
[NASA-CASE-LAR-12644-1] c 37 N84-28084  
**Rockwell International Corp., Houston, Tex.**  
Reusable captive blind fastener  
[NASA-CASE-MS-C-18742-1] c 37 N82-26673  
**Rockwell International Corp., Los Angeles, Calif.**  
Length mode piezoelectric ultrasonic transducer for inspection of solid objects  
[NASA-CASE-MS-C-18672-1] c 38 N79-14398  
**Rockwell International Corp., Pittsburgh, Pa.**  
CAM controlled retractable door latch  
[NASA-CASE-MS-C-20304-1] c 37 N82-31690  
Portable 90 deg proof loading device  
[NASA-CASE-MS-C-20250-1] c 37 N83-29707  
**Roph Corp., Chula Vista, Calif.**  
Method of forming shapes from planar sheets of thermosetting materials  
[NASA-CASE-NPO-11038] c 15 N72-24522  
**Royal Aircraft Establishment, Farnborough (England).**  
Garments for controlling the temperature of the body Patent  
[NASA-CASE-XMS-10269] c 05 N71-24147  
**Ryan Aeronautical Co., San Diego, Calif.**  
Wing deployment method and apparatus Patent  
[NASA-CASE-XMS-00907] c 02 N70-41630  
Masking device Patent  
[NASA-CASE-XNP-02092] c 15 N70-42033  
**S**  
**San Jose State Univ., Calif.**  
Chelate-modified polymers for atmospheric gas chromatography  
[NASA-CASE-ARC-11154-1] c 25 N80-23383  
Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-2] c 52 N81-14613  
Indomethacin-antihistamine combination for gastric ulceration control  
[NASA-CASE-ARC-11118-1] c 52 N81-29764  
Use of glow discharge in fluidized beds  
[NASA-CASE-ARC-11245-1] c 28 N82-18401  
Preparation of crosslinked 1,2,4-oxadiazole polymer  
[NASA-CASE-ARC-11253-2] c 27 N82-24338  
Fire extinguishant materials  
[NASA-CASE-ARC-11252-1] c 25 N83-36118  
Fluoroether modified epoxy composites  
[NASA-CASE-ARC-11418-1] c 24 N84-11213  
Process for preparing perfluorotriazine elastomers and precursors thereof  
[NASA-CASE-ARC-11402-1] c 27 N84-22744  
**Sanders Associates, Inc., Nashua, N. H.**  
Increasing efficiency of switching type regulator circuits Patent  
[NASA-CASE-XMS-09352] c 09 N71-23316  
**Santa Barbara Research Center, Goleta, Calif.**  
Scanner  
[NASA-CASE-GSC-12032-2] c 43 N82-13465  
**Santa Clara Univ., Calif.**  
Reversed cowl flap inlet thrust augmentor  
[NASA-CASE-ARC-10754-1] c 07 N75-24738  
System for measuring Reynolds in a turbulently flowing fluid  
[NASA-CASE-ARC-10755-2] c 34 N76-27517  
System for measuring three fluctuating velocity components in a turbulently flowing fluid  
[NASA-CASE-ARC-10974-1] c 34 N77-27345  
Noise suppressor for turbo fan jet engines  
[NASA-CASE-ARC-10812-1] c 07 N83-33884  
**Schjeldahl (G. T.) Co., Northfield, Minn.**  
Rotating mandrel for assembly of inflatable devices Patent  
[NASA-CASE-XLA-04143] c 15 N71-17687  
Traveling sealer for contoured table Patent  
[NASA-CASE-XLA-01494] c 15 N71-24184  
**Science Applications, Inc., La Jolla, Calif.**  
Violet process for producing flame resistant polyamides and products produced thereby  
[NASA-CASE-MS-C-16074-1] c 27 N80-26446  
**Scott Aviation Corp., Lancaster, N. Y.**  
Self-contained breathing apparatus  
[NASA-CASE-MS-C-14733-1] c 54 N76-24900



- Serv-Air, Inc., Edwards, Calif.**  
Portable device for use in starting air-start-units for aircraft and having cable lead testing capability  
[NASA-CASE-FRC-10113-1] c 33 N80-26599
- Serv-Air, Inc., Houston, Tex.**  
Stator rotor tools  
[NASA-CASE-MSC-16000-1] c 37 N78-24544
- Sheldahl Co., Northfield, Minn.**  
Method and apparatus for preparing multiconductor cable with flat conductors  
[NASA-CASE-MFS-10946-1] c 31 N79-21226  
Edge coating of flat wires  
[NASA-CASE-XMF-05757-1] c 31 N79-21227
- Sikorsky Aircraft, Stratford, Conn.**  
Locking redundant link  
[NASA-CASE-LAR-11900-1] c 37 N79-14382  
Rotor blade with passive tuned tab  
[NASA-CASE-ARC-11444-1] c 02 N83-25663
- Singer Co., Binghamton, N.Y.**  
Digital interface for bi-directional communication between a computer and a peripheral device  
[NASA-CASE-MSC-20258-1] c 60 N84-28492
- Singer-General Precision, Inc., Binghamton, N.Y.**  
CRT blanking and brightness control circuit  
[NASA-CASE-KSC-10647-1] c 10 N72-31273
- Smith Electronics, Inc., Cleveland, Ohio.**  
Phase detector assembly Patent  
[NASA-CASE-XMF-00701] c 09 N70-40272
- Smithsonian Astrophysical Observatory, Cambridge, Mass.**  
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency  
[NASA-CASE-HQN-10654-1] c 16 N73-13489  
Tunable cavity resonator with ramp shaped supports  
[NASA-CASE-HQN-10790-1] c 36 N74-11313
- Solid State Radiations, Inc., Los Angeles, Calif.**  
Biomedical radiation detecting probe Patent  
[NASA-CASE-XMS-01177] c 05 N71-19440
- Southern Methodist Univ., Dallas, Tex.**  
Process for utilizing low-cost graphite substrates for polycrystalline solar cells  
[NASA-CASE-GSC-12022-2] c 44 N78-24609
- Southern Research Inst., Birmingham, Ala.**  
Infusible silazane polymer and process for producing same  
[NASA-CASE-XMF-02526-1] c 27 N79-21190
- Southwest Research Inst., San Antonio, Tex.**  
Thin film strain transducer  
[US-PATENT-APPL-SN-526770] c 35 N84-12448  
Thin film strain transducer  
[NASA-CASE-WLP-10055-1] c 35 N84-28015
- Space Sciences, Inc., Waltham, Mass.**  
Doppler shift system  
[NASA-CASE-HQN-10740-1] c 72 N74-19310
- Space Technology Labs., Inc., Redondo Beach, Calif.**  
AC logic flip-flop circuits Patent  
[NASA-CASE-XGS-00823] c 10 N71-15910  
Apparatus for field strength measurement of a space vehicle Patent  
[NASA-CASE-XLE-00820] c 14 N71-16014  
Hermetically sealed explosive release mechanism Patent  
[NASA-CASE-XGS-00824] c 15 N71-16078  
Apparatus for measuring electric field strength on the surface of a model vehicle Patent  
[NASA-CASE-XLE-02038] c 09 N71-16086  
Solar cell mounting Patent  
[NASA-CASE-XNP-00826] c 03 N71-20895  
Prestressed refractory structure Patent  
[NASA-CASE-XNP-02888] c 18 N71-21068  
Linear accelerator frequency control system Patent  
[NASA-CASE-XGS-05441] c 10 N71-22962  
Fluid lubricant system Patent  
[NASA-CASE-XNP-03972] c 15 N71-23048  
Compensating bandwidth switching transients in an amplifier circuit Patent  
[NASA-CASE-XNP-SN-01107] c 10 N71-28859
- Spacelabs, Inc., Van Nuys, Calif.**  
Peak polarity selector Patent  
[NASA-CASE-FRC-10010] c 10 N71-24862  
Respiration monitor  
[NASA-CASE-FRC-10012] c 14 N72-17329
- Spaco, Inc., Huntsville, Ala.**  
Sight switch using an infrared source and sensor Patent  
[NASA-CASE-XMF-03934] c 09 N71-22985  
Method and device for detecting voids in low density material Patent  
[NASA-CASE-MFS-20044] c 14 N71-28993
- Spectra-Physics, Inc., Mountain View, Calif.**  
Optically pumped resonance magnetometer for determining vectorial components in a spatial coordinate system Patent  
[NASA-CASE-XGS-04879] c 14 N71-20428
- Spectrolab, Inc., Sylmar, Calif.**  
Ultraviolet filter  
[NASA-CASE-XNP-02340] c 23 N69-24332  
Central spar and module joint Patent  
[NASA-CASE-XNP-02341] c 15 N71-21531  
Apparatus for applying cover slides  
[NASA-CASE-NPO-10575] c 03 N72-25019
- Sperry Gyroscope Co., Great Neck, N.Y.**  
Automatic gain control system  
[NASA-CASE-XMS-05307] c 09 N69-24330
- Sperry Rand Corp., Blue Bell, Pa.**  
Flipflop interrogator and bi-polar current driver Patent  
[NASA-CASE-XGS-03058] c 10 N71-19547
- Sperry Rand Corp., Huntsville, Ala.**  
Optical tracking mount Patent  
[NASA-CASE-MFS-14017] c 14 N71-26627  
Collapsible antenna boom and transmission line Patent  
[NASA-CASE-MFS-20068] c 07 N71-27191  
Device for handling printed circuit cards Patent  
[NASA-CASE-MFS-20453] c 15 N71-29133  
Frequency division multiplex technique  
[NASA-CASE-KSC-10521] c 07 N73-20176  
Device for configuring multiple leads  
[NASA-CASE-MFS-22133-1] c 33 N74-26977  
System for enhancing tool-exchange capabilities of a portable wrench  
[NASA-CASE-MFS-22283-1] c 37 N75-33395  
Remotely operable articulated manipulator  
[NASA-CASE-MFS-22707-1] c 37 N76-15457  
Photovoltaic cell array  
[NASA-CASE-MFS-22458-1] c 44 N77-10635  
Notch filter  
[NASA-CASE-MFS-23303-1] c 32 N77-18307  
FM/CW radar system  
[NASA-CASE-MFS-22234-1] c 32 N79-10264  
Anastigmatic three-mirror telescope  
[NASA-CASE-MFS-23675-1] c 89 N79-10969
- Sperry Rand Corp., Phoenix, Ariz.**  
Isolation coupling arrangement for a torque measuring system  
[NASA-CASE-XLA-04897] c 15 N72-22482
- Stanford Research Inst., Menlo Park, Calif.**  
Automatic fault correction system for parallel signal channels Patent  
[NASA-CASE-XNP-03263] c 09 N71-18843  
Mercury capillary interrupter Patent  
[NASA-CASE-XNP-02251] c 12 N71-20896  
Magnetic power switch Patent  
[NASA-CASE-NPO-10242] c 09 N71-24803  
Procedure and apparatus for determination of water in nitrogen tetroxide  
[NASA-CASE-NPO-10234] c 06 N72-17094
- Stanford Univ., Calif.**  
Active RC networks  
[NASA-CASE-ARC-10042-2] c 10 N72-11256  
Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain  
[NASA-CASE-ARC-10192] c 09 N72-21245  
Spacecraft attitude control method and apparatus  
[NASA-CASE-HQN-10439] c 21 N72-21624  
Laser system with an antiresonant optical ring  
[NASA-CASE-HQN-10844-1] c 36 N75-19653  
Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility  
[NASA-CASE-HQN-10069] c 33 N75-27251  
Reaction cured glass and glass coatings  
[NASA-CASE-ARC-11051-1] c 27 N78-32260  
Fibrous refractory composite insulation  
[NASA-CASE-ARC-11169-1] c 24 N79-24062  
Controller arm for a remotely related slave arm  
[NASA-CASE-ARC-11052-1] c 37 N79-28551  
High temperature glass thermal control structure and coating  
[NASA-CASE-ARC-11164-1] c 44 N83-34448
- Stanford Univ., Palo Alto, Calif.**  
RC networks and amplifiers employing the same  
[NASA-CASE-XAC-05462-2] c 10 N72-17171
- State Univ. of Iowa, Iowa City.**  
Mixture separation cell Patent  
[NASA-CASE-XMS-02952] c 18 N71-20742
- Sylvania Electronic Systems-Central, Williamsport, N.Y.**  
Acquisition and tracking system for optical radar  
[NASA-CASE-MFS-20125] c 16 N72-13437  
Altitude sensing device  
[NASA-CASE-XMS-01894-1] c 14 N72-17326
- Taag Designs, Inc., College Park, Md.**  
Recovery of radiation damaged solar cells through thermal annealing  
[NASA-CASE-XGS-04047-2] c 03 N72-11062
- Phototropic composition of matter**  
[NASA-CASE-XGS-03738] c 14 N72-22443
- Taft Broadcasting Corp., Houston, Tex.**  
Television noise reduction device  
[NASA-CASE-MSC-12607-1] c 32 N75-21485
- Tamarack Scientific Co., Inc., Orange, Calif.**  
Detector absorptivity measuring method and apparatus  
[NASA-CASE-LAR-10907-1] c 35 N76-29551
- Technicolor, Inc., Paramus, N.J.**  
Automatic lightning detection and photographic system  
[NASA-CASE-KSC-10728-1] c 14 N73-32319
- Technidyne, Inc., West Chester, Pa.**  
Methods and apparatus employing vibratory energy for wrenching Patent  
[NASA-CASE-MFS-20586] c 15 N71-17686
- Technion - Israel Inst. of Tech., Haifa.**  
Modified face seal for positive film stiffness  
[NASA-CASE-LEW-12989-1] c 37 N82-12442
- Technion Research and Development Foundation Ltd., Haifa (Israel).**  
Self-stabilizing radial face seal  
[NASA-CASE-LEW-12991-1] c 37 N81-24442
- Technology, Inc., Houston, Tex.**  
Apparatus and method for processing Korotkov sounds  
[NASA-CASE-MSC-13999-1] c 52 N74-26626
- Technology, Inc., San Antonio, Tex.**  
Contourgraph system for monitoring electrocardiograms  
[NASA-CASE-MSC-13407-1] c 10 N72-20225  
Modification of the physical properties of freeze-dried rice  
[NASA-CASE-MSC-13540-1] c 05 N72-33096
- Teledyne Brown Engineering, Huntsville, Ala.**  
Self-recording portable soil penetrometer  
[NASA-CASE-MFS-20774] c 14 N73-19420
- Temple Univ. Research Inst., Philadelphia, Pa.**  
Barium release system  
[NASA-CASE-LAR-10670-1] c 06 N73-30087  
Rocket having barium release system to create ion clouds in the upper atmosphere  
[NASA-CASE-LAR-10670-2] c 15 N74-27360
- Tennessee Univ., Knoxville.**  
Automatic oscillator frequency control system  
[NASA-CASE-GSC-12804-1] c 33 N83-35228
- Texas A&M Univ., College Station.**  
Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction  
[NASA-CASE-MFS-23315-1] c 76 N78-24950
- Texas Instruments, Inc., Dallas.**  
Integrated circuit including field effect transistor and cermet resistor  
[NASA-CASE-GSC-10835-1] c 09 N72-33205  
Apparatus for measuring semiconductor device resistance  
[NASA-CASE-NPO-14424-1] c 33 N80-32650
- Texas Technological Univ., Lubbock.**  
Insulated electrocardiographic electrodes  
[NASA-CASE-MSC-14339-1] c 05 N75-24716
- Thiokol Chemical Corp., Bristol, Pa.**  
Casting propellant in rocket engine  
[NASA-CASE-LAR-11895-1] c 28 N77-10213
- Thiokol Corp., Brigham City, Utah.**  
Process for the leaching of AP from propellant  
[NASA-CASE-NPO-14109-1] c 28 N80-23471  
Recovery of aluminum from composite propellants  
[NASA-CASE-NPO-14110-1] c 28 N81-15119
- Thompson Ramo Wooldridge, Inc., Cleveland, Ohio.**  
Electromagnetic radiation energy arrangement  
[NASA-CASE-WOO-00428-1] c 32 N79-19186
- Tisdale (Henry F., Sr.), Treasure Island, Fla.**  
Velocity vector control system augmented with direct lift control  
[NASA-CASE-LAR-12268-1] c 08 N81-24106
- Trans-Sonics, Inc., Lexington, Mass.**  
Capacitive tank gaging apparatus being independent of liquid distribution  
[NASA-CASE-MFS-21629] c 14 N72-22442
- TransTechnology Corp., Canyon Country, Calif.**  
Slide release mechanism  
[NASA-CASE-MSC-20080-1] c 37 N82-31688
- Trident Engineering Associates, Inc., Annapolis, Md.**  
Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent  
[NASA-CASE-XGS-08269] c 23 N71-26206
- TRW Defense and Space Systems Group, Redondo Beach, Calif.**  
Heat reflecting field stop  
[NASA-CASE-LAR-12443-1] c 74 N82-19030  
Optical crystal temperature gauge with fiber optic connections  
[NASA-CASE-MSC-18627-1] c 74 N82-30071



## U

## TRW Equipment Labs., Cleveland, Ohio.

- Pulsed energy power system Patent  
[NASA-CASE-MSC-13112] c 03 N71-11057
- TRW, Inc., Redondo Beach, Calif.**  
Method of and device for determining the characteristics and flux distribution of micrometeorites  
[NASA-CASE-NPO-12127-1] c 81 N74-13130
- Reinforced structural plastics  
[NASA-CASE-LEW-10199-1] c 27 N74-23125
- Capillary flow weld-bonding  
[NASA-CASE-LAR-11726-1] c 37 N78-27568
- Ruler for making navigational computations  
[NASA-CASE-XNP-01458] c 04 N78-17031
- Particle parameter analyzing system  
[NASA-CASE-XLE-06094] c 33 N78-17293
- Temperature compensated current source  
[NASA-CASE-MSC-11235] c 33 N78-17294
- Shunt regulation electric power system  
[NASA-CASE-GSC-10135] c 33 N78-17296
- Heat pipe with dual working fluids  
[NASA-CASE-ARC-10198] c 34 N78-17336
- Multi-chamber controllable heat pipe  
[NASA-CASE-ARC-10199] c 34 N78-17337
- Microbalance  
[NASA-CASE-MSC-11242] c 35 N78-17358
- Gas ion laser construction for electrically isolating the pressure gauge thereof  
[NASA-CASE-MFS-22597] c 38 N78-17366
- Wobble gear drive mechanism  
[NASA-CASE-WOO-00625] c 37 N78-17385
- Apparatus for handling micron size range particulate material  
[NASA-CASE-NPO-10151] c 37 N78-17386
- Solar cell module assembly jig  
[NASA-CASE-XGS-00829-1] c 44 N79-19447
- Apparatus for fiber optic liquid level sensing  
[NASA-CASE-MSC-18674-1] c 74 N81-24907
- Low thrust monopropellant engine  
[NASA-CASE-GSC-12194-2] c 20 N82-18314
- Moisture content and gas sampling device  
[NASA-CASE-MSC-18866-1] c 35 N82-26634
- TRW Systems, Redondo Beach, Calif.**  
Electromechanical actuator  
[NASA-CASE-XNP-05975] c 15 N69-23185
- Control valve and co-axial variable injector Patent  
[NASA-CASE-XNP-09702] c 15 N71-17654
- Multiple orifice throttle valve Patent  
[NASA-CASE-XNP-09698] c 15 N71-18580
- Semitoroidal diaphragm cavitating valve Patent  
[NASA-CASE-XNP-09704] c 12 N71-18615
- Electrohydrodynamic control valve Patent  
[NASA-CASE-NPO-10418] c 12 N71-27332
- TRW Systems Group, Redondo Beach, Calif.**  
Ablative resin Patent  
[NASA-CASE-XLE-05913] c 33 N71-14032
- Passive caging mechanism Patent  
[NASA-CASE-GSC-10306-1] c 15 N71-24694
- Multiple varactor frequency doubler Patent  
[NASA-CASE-XMF-04958-1] c 10 N71-26414
- Booster tank system Patent  
[NASA-CASE-MSC-12390] c 27 N71-29155
- Resonant infrasonic gauging apparatus  
[NASA-CASE-MSC-11847-1] c 14 N72-11363
- Wide range analog-to-digital converter with a variable gain amplifier  
[NASA-CASE-NPO-11018] c 08 N72-21200
- System for preconditioning a combustible vapor  
[NASA-CASE-NPO-12072] c 28 N72-22772
- Failsafe multiple transformer circuit configuration  
[NASA-CASE-NPO-11078] c 09 N72-25262
- Digital control and information system  
[NASA-CASE-NPO-11018] c 08 N72-31226
- Ultrasonically bonded valve assembly  
[NASA-CASE-NPO-13360-1] c 37 N75-25185
- Cosmic dust analyzer  
[NASA-CASE-MSC-13802-2] c 35 N76-15431
- Weld-bonded titanium structures  
[NASA-CASE-LAR-11549-1] c 37 N77-11397
- Flat-plate heat pipe  
[NASA-CASE-GSC-11998-1] c 34 N77-32413
- Spatial filter for Q-switched lasers  
[NASA-CASE-LEW-12164-1] c 38 N77-32478
- Digital numerically controlled oscillator  
[NASA-CASE-MSC-16747-1] c 33 N81-17349
- Self-calibrating threshold detector  
[NASA-CASE-MSC-16370-1] c 35 N81-19427
- Tyco Labs., Inc., Waltham, Mass.**  
Bonding thermoelectric elements to nonmagnetic refractory metal electrodes  
[NASA-CASE-XGS-04554] c 15 N69-39786
- Segmenting lead telluride-silicon germanium thermoelements Patent  
[NASA-CASE-XGS-05718] c 26 N71-16037
- Electrocatalyst for oxygen reduction  
[NASA-CASE-HQN-10537-1] c 06 N72-10138

- Ultrasystems, Inc., Irvine, Calif.**  
Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-1] c 27 N78-32256
- Compound oxidized styrylphosphine  
[NASA-CASE-MSC-14903-2] c 27 N80-10358
- Heat resistant polymers of oxidized styrylphosphine  
[NASA-CASE-MSC-14903-3] c 27 N80-24438
- Unified Science Associates, Inc., Pasadena, Calif.**  
Method of producing crystalline materials  
[NASA-CASE-NPO-10440] c 15 N72-21466
- Union Carbide Corp., New York.**  
Laser apparatus for removing material from rotating objects Patent  
[NASA-CASE-MFS-11279] c 16 N71-20400
- United Aircraft Corp., East Hartford, Conn.**  
Supporting and protecting device Patent  
[NASA-CASE-XMF-00580] c 11 N70-35383
- Spherical tank gauge Patent  
[NASA-CASE-XMS-06238] c 14 N71-21007
- Omnidirectional joint Patent  
[NASA-CASE-XMS-09635] c 05 N71-24623
- Foreshortened convolute section for a pressurized suit Patent  
[NASA-CASE-XMS-09637-1] c 05 N71-24730
- Tertiary flow injection thrust vectoring system Patent  
[NASA-CASE-MFS-20831] c 26 N71-29153
- Restraint torso for a pressurized suit  
[NASA-CASE-MSC-12397-1] c 05 N72-25119
- Transformer regulated self-stabilizing chopper  
[NASA-CASE-XGS-09186] c 33 N78-17295
- Restraining mechanism  
[NASA-CASE-MSC-13054] c 54 N78-17677
- Helmet latching and attaching ring  
[NASA-CASE-XMS-04670] c 54 N78-17678
- Protective garment ventilation system  
[NASA-CASE-XMS-04928] c 54 N78-17679
- Helmet feedport  
[NASA-CASE-XMS-09653] c 54 N78-17680
- Emergency space-suit helmet  
[NASA-CASE-MSC-10954-1] c 54 N78-18781
- Flow diverter valve and flow diversion method  
[NASA-CASE-HQN-00573-1] c 37 N79-33468
- Thermal garment  
[NASA-CASE-XMS-03694-1] c 54 N82-29002
- Glass compositions with a high modulus of elasticity  
[NASA-CASE-HQN-10274-1] c 27 N82-29451
- High modulus invert analog glass compositions containing beryllia  
[NASA-CASE-HQN-10931-2] c 27 N82-29452
- Non-toxic invert analog glass compositions of high modulus  
[NASA-CASE-HQN-10328-2] c 27 N82-29454
- United Aircraft Corp., Stratford, Conn.**  
Bonded joint and method  
[NASA-CASE-LAR-10900-1] c 37 N74-23064
- Compensating linkage for main rotor control  
[NASA-CASE-LAR-11797-1] c 05 N81-19087
- United Aircraft Corp., Sunnyvale, Calif.**  
Method and tool for machining a transverse slot about a bore  
[NASA-CASE-LAR-11855-1] c 37 N81-14319
- United Aircraft Corp., West Palm Beach, Fla.**  
Inherent redundancy electric heater  
[NASA-CASE-MFS-21462-1] c 33 N74-14935
- United Aircraft Corp., Windsor Locks, Conn.**  
Water separating system Patent  
[NASA-CASE-XMS-13052] c 14 N71-20427
- Method of forming a root cord restrained convolute section  
[NASA-CASE-MSC-12398] c 05 N72-20098
- United States Radium Corp., Parsippany, N. J.**  
Method for applying photographic resists to otherwise incompatible substrates  
[NASA-CASE-MSC-18107-1] c 27 N81-25209
- United Technologies Corp., East Hartford, Conn.**  
Method of making a rocket nozzle  
[NASA-CASE-XMF-06884-1] c 20 N79-21123
- Fluid thrust control system  
[NASA-CASE-XMF-05964-1] c 20 N79-21124
- Rocket injector head  
[NASA-CASE-XMF-04592-1] c 20 N79-21125
- Retractable environmental seal  
[NASA-CASE-MFS-23846-1] c 37 N79-22474
- Portable breathing system  
[NASA-CASE-MSC-16182-1] c 54 N80-10799
- High modulus rare earth and beryllium containing silicate glass compositions  
[NASA-CASE-HQN-10595-1] c 27 N82-29455
- Joining lead wires to thin platinum alloy films  
[NASA-CASE-LEW-13934-1] c 35 N83-35338
- Combustor liner construction  
[NASA-CASE-LEW-14035-1] c 07 N84-24577

## United Technologies Corp., Windsor Locks, Conn.

- Cam-operated pitch-change apparatus  
[NASA-CASE-LEW-13050-1] c 07 N79-14095
- United Technology Center, Sunnyvale, Calif.**  
Solid propellant liner Patent  
[NASA-CASE-XNP-09744] c 27 N71-16392
- University of Southern Mississippi, Hattiesburg.**  
Low energy electron magnetometer using a monoenergetic electron beam  
[NASA-CASE-LAR-12706-1] c 35 N84-12444

## V

## Vanderbilt Univ., Nashville, Tenn.

- Solar driven liquid metal MHD power generator  
[NASA-CASE-LAR-12495-1] c 44 N83-28573
- Vapor Corp., Chicago, Ill.**  
Method and apparatus for controllably heating fluid Patent  
[NASA-CASE-XMF-04237] c 33 N71-16278
- Varian Associates, Palo Alto, Calif.**  
High power-high voltage waterload Patent  
[NASA-CASE-XNP-05381] c 09 N71-20842
- III-V photocathode with nitrogen doping for increased quantum efficiency  
[NASA-CASE-NPO-12134-1] c 33 N78-31409
- Virginia Polytechnic Inst. and State Univ., Blacksburg.**  
Logarithmic circuit with wide dynamic range  
[NASA-CASE-GSC-12145-1] c 33 N78-32339
- Polyphenylquinoxalines containing pendant phenylethynyl and ethynyl groups  
[NASA-CASE-LAR-12838-1] c 27 N83-34040
- Thermoset-thermoplastic aromatic polyamide containing N-propargyl groups  
[NASA-CASE-LAR-12723-2] c 27 N84-22746
- Ultrasonic transducer with Gaussian radial pressure distribution  
[NASA-CASE-LAR-12967-1] c 35 N84-22932
- Virginia Univ., Charlottesville.**  
Depositing semiconductor films utilizing a thermal gradient  
[NASA-CASE-XKS-04614] c 15 N69-21460
- Active microwave irises and windows  
[NASA-CASE-LAR-10513-1] c 07 N72-25170
- Thin film microwave iris  
[NASA-CASE-LAR-10511-1] c 09 N72-29172
- Apparatus for measuring a sorbate dispersed in a fluid stream  
[NASA-CASE-ARC-10896-1] c 35 N78-19465
- Vivonex Corp., Mountain View, Calif.**  
Amino acid analysis  
[NASA-CASE-NPO-12130-1] c 25 N75-14844
- Vought Corp., Hampton, Va.**  
Mechanical end joint system for structural column elements  
[NASA-CASE-LAR-12482-1] c 37 N82-32732

## W

## Weber Aircraft Corp., Burbank, Calif.

- Articulated multiple couch assembly Patent  
[NASA-CASE-MSC-11253] c 05 N71-12343
- Device for separating occupant from an ejection seat Patent  
[NASA-CASE-XMS-04625] c 05 N71-20718
- Collapsible Apollo couch  
[NASA-CASE-MSC-13140] c 05 N72-11085
- Westinghouse Electric Corp., Baltimore, Md.**  
Broadband choke for antenna structure  
[NASA-CASE-XMS-05303] c 07 N69-27462
- Electronic background suppression method and apparatus for a field scanning sensor  
[NASA-CASE-XGS-05211] c 07 N69-39980
- Solid-state current transformer  
[NASA-CASE-MFS-22560-1] c 33 N77-14335
- Time delay and integration detectors using charge transfer devices  
[NASA-CASE-GSC-12324-1] c 33 N81-33403
- Westinghouse Electric Corp., Huntsville, Ala.**  
Solid state television camera system Patent  
[NASA-CASE-XMF-06092] c 07 N71-24612
- Phototransistor  
[NASA-CASE-MFS-20407] c 09 N73-19235
- Westinghouse Electric Corp., Lima, Ohio.**  
Transistor drive regulator Patent  
[NASA-CASE-LEW-10233] c 10 N71-27126
- Westinghouse Electric Corp., Pittsburgh, Pa.**  
Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent  
[NASA-CASE-XMS-01315] c 09 N70-41675
- Thermal conductive connection and method of making same Patent  
[NASA-CASE-XMS-02087] c 09 N70-41717

Gas cooled high temperature thermocouple Patent  
[NASA-CASE-XLE-09475-1] c 33 N71-15568  
High resolution developing of photosensitive resists  
Patent  
[NASA-CASE-XGS-04993] c 14 N71-17574  
Regulated power supply Patent  
[NASA-CASE-XMS-01991] c 09 N71-21449  
Pulse modulator providing fast rise and fall times  
Patent  
[NASA-CASE-XMS-04919] c 09 N71-23270  
Extended area semiconductor radiation detectors and  
a novel readout arrangement Patent  
[NASA-CASE-XGS-03230] c 14 N71-23401  
Frequency shift keying apparatus Patent  
[NASA-CASE-XGS-01537] c 07 N71-23405  
Phase locked phase modulator including a voltage  
controlled oscillator Patent  
[NASA-CASE-XNP-05382] c 10 N71-23544  
Bearing and gimbal lock mechanism and spiral flex lead  
module Patent  
[NASA-CASE-GSC-10556-1] c 31 N71-26537  
Multiple slope sweep generator Patent  
[NASA-CASE-XMS-03542] c 09 N71-28926  
Self-adjusting multisegment, deployable, natural  
circulation radiator Patent  
[NASA-CASE-XHQ-03673] c 33 N71-29046  
Thermally cascaded thermoelectric generator  
[NASA-CASE-NPO-10753] c 03 N72-26031  
Phototransistor imaging system  
[NASA-CASE-MFS-20809] c 23 N73-13660  
Demodulator for carrier transducers  
[NASA-CASE-NUC-10107-1] c 33 N74-17930  
Heat transfer device  
[NASA-CASE-NPO-11120-1] c 34 N74-18552  
Amplitude steered array  
[NASA-CASE-GSC-11446-1] c 33 N74-20860  
Glass-to-metal seals comprising relatively high  
expansion metals  
[NASA-CASE-LEW-10698-1] c 37 N74-21063  
Millimeter wave pumped parametric amplifier  
[NASA-CASE-GSC-11617-1] c 33 N74-32660  
Method of forming a wick for a heat pipe  
[NASA-CASE-NPO-13391-1] c 34 N76-27515  
Magnifying image intensifier  
[NASA-CASE-GSC-12010-1] c 74 N78-18905  
**Westinghouse Electric Corp., Trafford, Pa.**  
Sodium storage and injection system  
[NASA-CASE-NPO-14384-1] c 37 N80-10494  
Method of producing silicon  
[NASA-CASE-NPO-14382-1] c 31 N80-18231  
**Weston Instruments, Inc., College Park, Md.**  
Electronically resettable fuse Patent  
[NASA-CASE-XGS-11177] c 09 N71-27001  
**Whirlpool Corp., St. Joseph, Mich.**  
Relief container  
[NASA-CASE-XMS-06761] c 05 N69-23192  
Fluid sample collector Patent  
[NASA-CASE-XMS-06767-1] c 14 N71-20435  
**Whittaker Corp., Los Angeles, Calif.**  
Polyurethanes of fluorine containing polycarbonates  
[NASA-CASE-MFS-10512] c 06 N73-30099  
Polyurethanes from fluoroalkyl propyleneglycol  
polyethers  
[NASA-CASE-MFS-10506] c 06 N73-30100  
Fluorohydroxy ethers  
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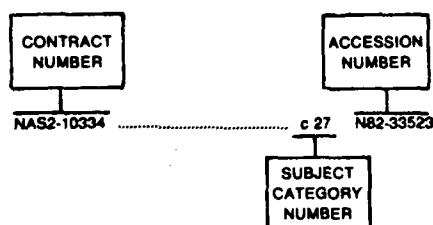
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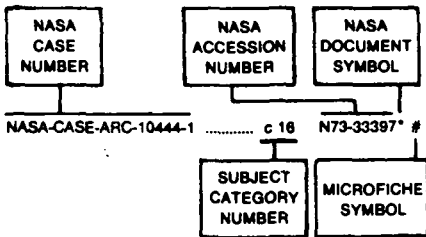
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NASA-CASE-GSC-11211-1	c 03	N72-25020	#	NASA-CASE-GSC-12053-1	c 32	N77-28346	#	NASA-CASE-GSC-12652-1	c 52	N84-34913	#
NASA-CASE-GSC-11214-1	c 06	N73-13128	#	NASA-CASE-GSC-12058-1	c 74	N77-26942	#	NASA-CASE-GSC-12682-1	c 35	N84-33765	#
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NASA-CASE-GSC-11239-1	c 10	N73-25241	#	NASA-CASE-GSC-12077-1	c 35	N77-24455	#	NASA-CASE-GSC-12697-1	c 31	N82-11312	#
NASA-CASE-GSC-11262-1	c 36	N74-21091	#	NASA-CASE-GSC-12081-2	c 52	N82-22875	#	NASA-CASE-GSC-12697-1	c 44	N83-28574	#
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NASA-CASE-GSC-11302-1	c 14	N73-13416	#	NASA-CASE-GSC-12083-1	c 73	N78-32848	#	NASA-CASE-GSC-12761-1	c 74	N83-13982	#
NASA-CASE-GSC-11304-1	c 06	N72-21105	#	NASA-CASE-GSC-12088-1	c 74	N78-13874	#	NASA-CASE-GSC-12762-1	c 37	N84-28083	#
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NASA-CASE-KSC-10834-1	c 33	N76-14371 *	#	NASA-CASE-LAR-10426-1	c 09	N74-19528 *	#	NASA-CASE-LAR-11211-1	c 37	N75-12326 *	#
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NASA-CASE-LAR-12304-1	c 35	N80-20559 *	#	NASA-CASE-LAR-12950-1	c 09	N84-34448 *	#	NASA-CASE-LEW-11078-3	c 37	N75-30562 *	#
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NASA-CASE-LAR-12315-1	c 37	N82-24490 *	#	NASA-CASE-LAR-12966-1	c 71	N83-12969 *	#	NASA-CASE-LEW-11087-1	c 15	N73-30458 *	#
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NASA-CASE-LAR-12321-1	c 35	N82-24470 *	#	NASA-CASE-LAR-12968-1	c 35	N83-34273 *	#	NASA-CASE-LEW-11087-3	c 37	N74-21064 *	#
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NASA-CASE-LAR-12328-1	c 36	N82-32712 *	#	NASA-CASE-LAR-12979-1	c 02	N83-29173 *	#	NASA-CASE-LEW-11118-1	c 20	N74-32919 *	#
NASA-CASE-LAR-12344-1	c 43	N80-18498 *	#	NASA-CASE-LAR-12980-1	c 27	N84-22749 *	#	NASA-CASE-LEW-11118-2	c 20	N76-14191 *	#
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NASA-CASE-LAR-12520-1	c 51										

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NASA-CASE-MSC-18407-1	c 33	N82-24427	#	NASA-CASE-NPO-10166-2	c 35	N78-16391	#	NASA-CASE-NPO-10758	c 14	N73-14427	#
NASA-CASE-MSC-18417-1	c 74	N84-23251	#	NASA-CASE-NPO-10169	c 10	N71-24844	#	NASA-CASE-NPO-10760	c 09	N72-25254	#
NASA-CASE-MSC-18422-1	c 37	N82-16408	#	NASA-CASE-NPO-10173	c 15	N71-24696	#	NASA-CASE-NPO-10764-1	c 14	N73-14428	#
NASA-CASE-MSC-18430-1	c 37	N82-24491	#	NASA-CASE-NPO-10174	c 14	N71-18485	#	NASA-CASE-NPO-10764-2	c 35	N75-25122	#
NASA-CASE-MSC-18498-1	c 60	N82-29013	#	NASA-CASE-NPO-10175	c 14	N71-18825	#	NASA-CASE-NPO-10765	c 08	N72-20121	#
NASA-CASE-MSC-18526-1	c 37	N82-24494	#	NASA-CASE-NPO-10185	c 10	N71-26339	#	NASA-CASE-NPO-10767-1	c 06	N73-33076	#
NASA-CASE-MSC-18532-1	c 32	N82-27558	#	NASA-CASE-NPO-10188	c 03	N71-20273	#	NASA-CASE-NPO-10767-2	c 06	N72-27151	#
NASA-CASE-MSC-18538-1	c 37	N82-26672	#	NASA-CASE-NPO-10189-1	c 33	N77-21314	#	NASA-CASE-NPO-10768-2	c 06	N72-27144	#
NASA-CASE-MSC-18578-1	c 74	N82-27121	#	NASA-CASE-NPO-10194	c 03	N71-20407	#	NASA-CASE-NPO-10768	c 06	N71-27254	#
NASA-CASE-MSC-18606-1	c 32	N82-11336	#	NASA-CASE-NPO-10198	c 08	N71-24806	#	NASA-CASE-NPO-10769	c 08	N72-11717	#
NASA-CASE-MSC-18627-1	c 74	N82-30071	#	NASA-CASE-NPO-10199	c 09	N72-17156	#	NASA-CASE-NPO-10774	c 06	N72-17095	#
NASA-CASE-MSC-18674-1	c 74	N81-24907	#	NASA-CASE-NPO-10201	c 08	N71-18694	#	NASA-CASE-NPO-10778	c 14	N72-11364	#
NASA-CASE-MSC-18675-1	c 32	N84-22820	#	NASA-CASE-NPO-10214	c 10	N71-26577	#	NASA-CASE-NPO-10781-1	c 33	N77-21314	#
NASA-CASE-MSC-18723-1	c 35	N83-21312	#	NASA-CASE-NPO-10230	c 09	N71-12520	#	NASA-CASE-NPO-10790-1	c 33	N77-21316	#
NASA-CASE-MSC-18736-1	c 24	N83-13172	#	NASA-CASE-NPO-10231	c 07	N71-26101	#	NASA-CASE-NPO-10796	c 15	N71-27038	#
NASA-CASE-MSC-18737-1	c 24	N83-13171	#	NASA-CASE-NPO-10233-1	c 74	N78-33913	#	NASA-CASE-NPO-10808	c 15	N71-27432	#
NASA-CASE-MSC-18741-1	c 27	N82-29456	#	NASA-CASE-NPO-10234	c 06	N72-17094	#	NASA-CASE-NPO-10810	c 14	N71-27323	#
NASA-CASE-MSC-18742-1	c 37	N82-26673	#	NASA-CASE-NPO-10242	c 09	N71-24803	#	NASA-CASE-NPO-10812	c 15	N73-13464	#
NASA-CASE-MSC-18759-1	c 52	N83-27578	#	NASA-CASE-NPO-10244	c 15	N72-26371	#	NASA-CASE-NPO-10817-1	c 08	N73-30135	#
NASA-CASE-MSC-18761-1	c 52	N83-27577	#	NASA-CASE-NPO-10250	c 23	N71-18212	#	NASA-CASE-NPO-10821	c 03	N71-19545	#
NASA-CASE-MSC-18791-1	c 37	N83-36482	#	NASA-CASE-NPO-10251	c 10	N71-27385	#	NASA-CASE-NPO-10828	c 33	N72-17948	#
NASA-CASE-MSC-18794-1	c 44	N83-14693	#	NASA-CASE-NPO-10271	c 17	N71-16393	#	NASA-CASE-NPO-10830-1	c 27	N81-15104	#
NASA-CASE-MSC-18796-1	c 24	N82-26389	#	NASA-CASE-NPO-10298	c 12	N71-17661	#	NASA-CASE-NPO-10831	c 33	N72-20915	#
NASA-CASE-MSC-18807-1	c 37	N83-36483	#	NASA-CASE-NPO-10300	c 14	N71-17662	#	NASA-CASE-NPO-10832	c 14	N72-21405	#
NASA-CASE-MSC-18832-1	c 27	N83-18908	#	NASA-CASE-NPO-10301	c 07	N72-11148	#	NASA-CASE-NPO-10844	c 07	N72-20140	#
NASA-CASE-MSC-18851-1	c 27	N82-26460	#	NASA-CASE-NPO-10302	c 10	N71-26142	#	NASA-CASE-NPO-10851	c 07	N71-24613	#
NASA-CASE-MSC-18852-1	c 37	N82-28640	#	NASA-CASE-NPO-10303	c 07	N72-22127	#	NASA-CASE-NPO-10857-1	c 33	N80-14330	#
NASA-CASE-MSC-18866-1	c 35	N82-26634	#	NASA-CASE-NPO-10309	c 15	N69-23190	#	NASA-CASE-NPO-10862	c 06	N72-22107	#
NASA-CASE-MSC-18929-1	c 39	N83-20280	#	NASA-CASE-NPO-10311	c 31	N71-15643	#	NASA-CASE-NPO-10863-2	c 06	N72-25152	#
NASA-CASE-MSC-18934-3	c 24	N82-26387	#	NASA-CASE-NPO-10316-1	c 37	N77-22479	#	NASA-CASE-NPO-10863	c 06	N70-11251	#
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NASA-CASE-MSC-19095-1	c 37	N75-19683	#	NASA-CASE-NPO-10337	c 14	N71-15604	#	NASA-CASE-NPO-10872-1	c 35	N79-16246	#
NASA-CASE-MSC-19372-1	c 39	N76-31562	#	NASA-CASE-NPO-10342	c 10	N71-33407	#	NASA-CASE-NPO-10883	c 31	N72-22874	#
NASA-CASE-MSC-19422-1	c 74	N77-10899	#	NASA-CASE-NPO-10343	c 07	N71-27341	#	NASA-CASE-NPO-10890	c 11	N73-12265	#
NASA-CASE-MSC-19514-1	c 37	N79-20377	#	NASA-CASE-NPO-10344	c 10	N71-26544	#	NASA-CASE-NPO-10893	c 27	N73-22710	#
NASA-CASE-MSC-19535-1	c 37	N77-32499	#	NASA-CASE-NPO-10348	c 10	N71-12554	#	NASA-CASE-NPO-10895	c 14	N73-20478	#
NASA-CASE-MSC-19536-1	c 37	N77-22482	#	NASA-CASE-NPO-10351	c 08	N71-12503	#	NASA-CASE-NPO-10898-1	c 06	N73-32029	#
NASA-CASE-MSC-19568-1	c 34	N78-25350	#	NASA-CASE-NPO-10373	c 03	N71-18698	#	NASA-CASE-NPO-10999-1	c 06	N73-32029	#
NASA-CASE-MSC-19666-1	c 37	N78-17383	#	NASA-CASE-NPO-10378	c 07	N71-24622	#	NASA-CASE-NPO-11001	c 07	N72-21118	#
NASA-CASE-MSC-19672-1	c 38	N79-14398	#	NASA-CASE-NPO-10401	c 03	N72-20033	#	NASA-CASE-NPO-11002	c 14	N72-22441	#
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NASA-CASE-MSC-19706-1	c 09	N78-31129	#	NASA-CASE-NPO-10412	c 09	N71-28421	#	NASA-CASE-NPO-11013	c 11	N72-22247	#
NASA-CASE-MSC-20038-1	c 76	N84-22457	#	NASA-CASE-NPO-10416	c 12	N71-27332	#	NASA-CASE-NPO-11016	c 08	N72-31226	#
NASA-CASE-MSC-20078-1	c 52	N82-32971	#	NASA-CASE-NPO-10417	c 18	N71-33410	#	NASA-CASE-NPO-11018	c 08	N72-21200	#
NASA-CASE-MSC-20080-1	c 37	N82-31688	#	NASA-CASE-NPO-10424-1	c 27	N81-24258	#	NASA-CASE-NPO-11021	c 03	N72-20032	#
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NASA-CASE-MSC-20148-1	c 37	N84-32823	#	NASA-CASE-NPO-10440	c 15	N72-21466	#	NASA-CASE-NPO-11031	c 07	N71-33606	#
NASA-CASE-MSC-20181-1	c 33	N82-28549	#	NASA-CASE-NPO-10447	c 06	N70-11252	#	NASA-CASE-NPO-11036	c 15	N72-24522	#
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NASA-CASE-MSC-20206-1	c 25	N83-29325	#	NASA-CASE-NPO-10468	c 23	N71-33229	#	NASA-CASE-NPO-11064	c 07	N72-11150	#
NASA-CASE-MSC-20250-1	c 37	N83-29707	#	NASA-CASE-NPO-10539	c 07	N71-11285	#	NASA-CASE-NPO-11078	c 09	N72-25262	#
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NASA-CASE-MSC-20258-1	c 60	N84-28492	#	NASA-CASE-NPO-10548	c 16	N71-24631	#	NASA-CASE-NPO-11087	c 23	N71-29125	#
NASA-CASE-MSC-20261-1	c 54	N84-28484	#	NASA-CASE-NPO-10556	c 14	N71-27185	#	NASA-CASE-NPO-11088	c 08	N71-29034	#
NASA-CASE-MSC-20261-2	c 54	N84-23113	#	NASA-CASE-NPO-10557	c 27	N78-17214	#	NASA-CASE-NPO-11091	c 18	N72-25267	#
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NASA-CASE-MSC-20319-1	c 37	N82-31689	#	NASA-CASE-NPO-10575	c 03	N72-25019	#	NASA-CASE-NPO-11104	c 08	N72-22185	#
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NASA-CASE-NPO-11202	c 15	N72-25450 *	#	NASA-CASE-NPO-11962-1	c 33	N74-10184 *	#	NASA-CASE-NPO-13447-1	c 60	N77-12721 *	#
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NASA-CASE-NPO-11291-1	c 14	N73-30388 *	#	NASA-CASE-NPO-12107	c 08	N71-27255 *	#	NASA-CASE-NPO-13490-1	c 36	N76-31512 *	#
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NASA-CASE-NPO-11336-1	c 76	N79-16678 *	#	NASA-CASE-NPO-12148-1	c 44	N78-27515 *	#	NASA-CASE-NPO-13535-1	c 37	N76-31524 *	#
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NASA-CASE-NPO-11369	c 15	N73-13467 *	#	NASA-CASE-NPO-13067-1	c 60	N76-18800 *	#	NASA-CASE-NPO-13556-1	c 35	N84-33766 *	#
NASA-CASE-NPO-11371	c 08	N73-12177 *	#	NASA-CASE-NPO-13081-1	c 33	N74-22814 *	#	NASA-CASE-NPO-13560-1	c 44	N77-10636 *	#
NASA-CASE-NPO-11373	c 13	N72-25323 *	#	NASA-CASE-NPO-13086-1	c 15	N73-12495 *	#	NASA-CASE-NPO-13561-1	c 44	N77-10636 *	#
NASA-CASE-NPO-11377	c 15	N73-27406 *	#	NASA-CASE-NPO-13087-2	c 44	N76-31666 *	#	NASA-CASE-NPO-13566-1	c 25	N77-32255 *	#
NASA-CASE-NPO-11387	c 14	N73-14429 *	#	NASA-CASE-NPO-13091-1	c 09	N73-12214 *	#	NASA-CASE-NPO-13567-1	c 44	N76-29701 *	#
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NASA-CASE-NPO-11403-1	c 33	N77-22386 *	#	NASA-CASE-NPO-13103-1	c 32	N74-20811 *	#	NASA-CASE-NPO-13569-2	c 35	N79-14348 *	#
NASA-CASE-NPO-11406	c 08	N73-12175 *	#	NASA-CASE-NPO-13105-1	c 37	N74-21060 *	#	NASA-CASE-NPO-13579-1	c 44	N78-17460 *	#
NASA-CASE-NPO-11417	c 15	N73-24513 *	#	NASA-CASE-NPO-13112-1	c 73	N74-26767 *	#	NASA-CASE-NPO-13579-2	c 44	N79-24433 *	#
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US-PATENT-APPL-SN-145271	c 23	N81-29160 *	#	US-PATENT-APPL-SN-166541	c 14	N73-13415 *	#	US-PATENT-APPL-SN-185887	c 44	N82-26777 *	#
US-PATENT-APPL-SN-145272	c 33	N82-28545 *	#	US-PATENT-APPL-SN-166969	c 15	N70-34249 *	#	US-PATENT-APPL-SN-185868	c 24	N84-16262 *	#
US-PATENT-APPL-SN-145273	c 51	N81-32829 *	#	US-PATENT-APPL-SN-166970	c 15	N70-38409 *	#	US-PATENT-APPL-SN-185869	c 71	N82-16800 *	#
US-PATENT-APPL-SN-145282	c 74	N82-24072 *	#	US-PATENT-APPL-SN-167719	c 16	N73-33397 *	#	US-PATENT-APPL-SN-186700	c 32	N74-12912 *	#
US-PATENT-APPL-SN-145283	c 27	N81-24256 *	#	US-PATENT-APPL-SN-16808	c 14	N72-22445 *	#	US-PATENT-APPL-SN-186881	c 74	N82-30071 *	#
US-PATENT-APPL-SN-145284	c 27	N82-24338 *	#	US-PATENT-APPL-SN-168560	c 02	N70-34856 *	#	US-PATENT-APPL-SN-187106	c 74	N83-17305 *	#
US-PATENT-APPL-SN-146217	c 14	N71-34389 *	#	US-PATENT-APPL-SN-168650	c 14	N73-13416 *	#	US-PATENT-APPL-SN-187143	c 36	N74-13205 *	#
US-PATENT-APPL-SN-146935	c 14	N73-20475 *	#	US-PATENT-APPL-SN-168943	c 54	N82-26987 *	#	US-PATENT-APPL-SN-187262	c 15	N73-27406 *	#
US-PATENT-APPL-SN-146939	c 73	N75-30876 *	#	US-PATENT-APPL-SN-168944	c 37	N82-32731 *	#	US-PATENT-APPL-SN-187365	c 35	N74-15127 *	#
US-PATENT-APPL-SN-146940	c 05	N73-32014 *	#	US-PATENT-APPL-SN-168995	c 33	N80-32651 *	#	US-PATENT-APPL-SN-187446	c 31	N70-37924 *	#
US-PATENT-APPL-SN-147099	c 14	N73-13417 *	#	US-PATENT-APPL-SN-169671	c 10	N73-30205 *	#	US-PATENT-APPL-SN-187776	c 28	N70-33284 *	#
US-PATENT-APPL-SN-147103	c 10	N73-20253 *	#	US-PATENT-APPL-SN-169682	c 34	N74-30608 *	#	US-PATENT-APPL-SN-18780	c 12	N70-33305 *	#
US-PATENT-APPL-SN-147695	c 32	N84-27952 *	#	US-PATENT-APPL-SN-169977	c 14	N70-34794 *	#	US-PATENT-APPL-SN-188160	c 74	N82-19029 *	#
US-PATENT-APPL-SN-147700	c 27	N82-24339 *	#	US-PATENT-APPL-SN-170440	c 15	N73-13462 *	#	US-PATENT-APPL-SN-188594	c 15	N70-34967 *	#
US-PATENT-APPL-SN-147922	c 28	N73-19793 *	#	US-PATENT-APPL-SN-170544	c 36	N77-19416 *	#	US-PATENT-APPL-SN-188836	c 35	N74-34857 *	#
US-PATENT-APPL-SN-147940	c 14	N72-10375 *	#	US-PATENT-APPL-SN-170680	c 34	N74-15852 *	#	US-PATENT-APPL-SN-188927	c 08	N73-32081 *	#
US-PATENT-APPL-SN-147986	c 28	N73-24784 *	#	US-PATENT-APPL-SN-170681	c 10	N73-25240 *	#	US-PATENT-APPL-SN-188928	c 37	N74-13178 *	#
US-PATENT-APPL-SN-147997	c 15	N72-33477 *	#	US-PATENT-APPL-SN-17101	c 28	N72-18766 *	#	US-PATENT-APPL-SN-189234	c 24	N81-12174 *	#
US-PATENT-APPL-SN-148001	c 14	N70-34298 *	#	US-PATENT-APPL-SN-171928	c 33	N82-26570 *	#	US-PATENT-APPL-SN-189290	c 14	N73-27379 *	#
US-PATENT-APPL-SN-148756	c 15	N73-13466 *	#	US-PATENT-APPL-SN-171933	c 37	N82-12441 *	#	US-PATENT-APPL-SN-189375	c 18	N73-14584 *	#
US-PATENT-APPL-SN-149283	c 35	N74-17153 *	#	US-PATENT-APPL-SN-171934	c 35	N82-26626 *	#	US-PATENT-APPL-SN-189438	c 35	N76-15431 *	#
US-PATENT-APPL-SN-149526	c 52	N82-33996 *	#	US-PATENT-APPL-SN-172098	c 33	N80-29583 *	#	US-PATENT-APPL-SN-189648	c 32	N70-36536 *	#
US-PATENT-APPL-SN-149983	c 31	N72-21893 *	#	US-PATENT-APPL-SN-172099	c 32	N82-27558 *	#	US-PATENT-APPL-SN-18982	c 28	N72-11708 *	#
US-PATENT-APPL-SN-150040	c 36	N82-29589 *	#	US-PATENT-APPL-SN-172100	c 27	N82-33520 *	#	US-PATENT-APPL-SN-190316	c 17	N73-32414 *	#
US-PATENT-APPL-SN-150115	c 44	N82-16475 *	#	US-PATENT-APPL-SN-172459	c 06	N73-18106 *	#	US-PATENT-APPL-SN-191301	c 25	N74-12813 *	#
US-PATENT-APPL-SN-15019	c 15	N72-17455 *	#	US-PATENT-APPL-SN-172727	c 33	N81-26360 *	#	US-PATENT-APPL-SN-191744	c 33	N82-29538 *	#
US-PATENT-APPL-SN-15020	c 14	N70-34697 *	#	US-PATENT-APPL-SN-172807	c 07	N73-28012 *	#	US-PATENT-APPL-SN-191746	c 26	N81-16209 *	#
US-PATENT-APPL-SN-150215	c 33	N73-25952 *	#	US-PATENT-APPL-SN-173081	c 28	N70-36806 *	#	US-PATENT-APPL-SN-191748	c 26	N82-30371 *	#
US-PATENT-APPL-SN-15022	c 15	N72-21465 *	#	US-PATENT-APPL-SN-173178	c 33	N77-21315 *	#	US-PATENT-APPL-SN-191748	c 35	N82-31659 *	#
US-PATENT-APPL-SN-15023	c 15	N70-34699 *	#	US-PATENT-APPL-SN-173185	c 23	N73-13660 *	#	US-PATENT-APPL-SN-192016	c 03	N70-36778 *	#
US-PATENT-APPL-SN-15024	c 09	N72-21245 *	#	US-PATENT-APPL-SN-173190	c 05	N73-32015 *	#	US-PATENT-APPL-SN-192101	c 10	N73-20254 *	#
US-PATENT-APPL-SN-15025	c 03	N72-20033 *	#	US-PATENT-APPL-SN-173518	c 60	N82-29013 *	#	US-PATENT-APPL-SN-192141	c 07	N74-24176 *	#
US-PATENT-APPL-SN-150690	c 35	N78-33450 *	#	US-PATENT-APPL-SN-173519	c 44	N82-26776 *	#	US-PATENT-APPL-SN-192803	c 07	N73-22076 *	#
US-PATENT-APPL-SN-151112	c 15	N70-34814 *	#	US-PATENT-APPL-SN-173520	c 31	N83-27058 *	#	US-PATENT-APPL-SN-192803	c 35	N76-16391 *	#
US-PATENT-APPL-SN-151114	c 31	N70-34176 *	#	US-PATENT-APPL-SN-173524	c 35	N82-32659 *	#	US-PATENT-APPL-SN-192970	c 23	N73-30665 *	#
US-PATENT-APPL-SN-151411	c 07	N73-28118 *	#	US-PATENT-APPL-SN-173981	c 14	N70-35666 *	#	US-PATENT-APPL-SN-193456	c 10	N73-25243 *	#
US-PATENT-APPL-SN-151412	c 09	N73-32112 *	#	US-PATENT-APPL-SN-174684	c 33	N75-31331 *	#	US-PATENT-APPL-SN-193671	c 15	N73-12488 *	#
US-PATENT-APPL-SN-151413	c 14	N73-12447 *	#	US-PATENT-APPL-SN-175267	c 14	N73-28466 *	#	US-PATENT-APPL-SN-193672	c 54	N74-14845 *	#
US-PATENT-APPL-SN-151598	c 03	N70-34134 *	#	US-PATENT-APPL-SN-175452	c 27	N81-27272 *	#	US-PATENT-APPL-SN-193814	c 14	N73-30393 *	#
US-PATENT-APPL-SN-15222	c 18	N72-25539 *	#	US-PATENT-APPL-SN-175453	c 85	N82-33288 *	#	US-PATENT-APPL-SN-193947	c 14	N73-13420 *	#
US-PATENT-APPL-SN-152328	c 02	N74-20646 *	#	US-PATENT-APPL-SN-175497	c 08	N73-28045 *	#	US-PATENT-APPL-SN-193980	c 31	N74-13177 *	#
US-PATENT-APPL-SN-152849	c 15	N73-30457 *	#	US-PATENT-APPL-SN-175852	c 25	N73-25760 *	#	US-PATENT-APPL-SN-195061	c 05	N73-25125 *	#
US-PATENT-APPL-SN-153240	c 33	N80-26601 *	#	US-PATENT-APPL-SN-175881	c 09	N73-15235 *	#	US-PATENT-APPL-SN-195223	c 35	N83-21311 *	#
US-PATENT-APPL-SN-153245	c 74	N83-29032 *	#	US-PATENT-APPL-SN-175981	c 16	N73-30476 *	#	US-PATENT-APPL-SN-195226	c 31	N83-31895 *	#
US-PATENT-APPL-SN-153246	c 52	N82-29863 *	#	US-PATENT-APPL-SN-175983	c 31	N73-32750 *	#	US-PATENT-APPL-SN-195227	c 74	N83-32577 *	#
US-PATENT-APPL-SN-153266	c 02	N70-38011 *	#	US-PATENT-APPL-SN-177684	c 28	N70-34860 *	#	US-PATENT-APPL-SN-195228	c 74	N83-10900 *	#
US-PATENT-APPL-SN-153542	c 28	N73-32606 *	#	US-PATENT-APPL-SN-177753	c 07	N72-20154 *	#	US-PATENT-APPL-SN-195346	c 15	N70-36492 *	#
US-PATENT-APPL-SN-153543	c 08	N73-26176 *	#	US-PATENT-APPL-SN-177985	c 35	N74-15831 *	#	US-PATENT-APPL-SN-195347	c 31	N70-34135 *	#
US-PATENT-APPL-SN-153624	c 37	N75-27376 *	#	US-PATENT-APPL-SN-178192	c 25	N83-33977 *	#	US-PATENT-APPL-SN-195547	c 33	N81-15184 *	#
US-PATENT-APPL-SN-154094	c 33	N72-27959 *	#	US-PATENT-APPL-SN-178193	c 52	N82-29862 *	#	US-PATENT-APPL-SN-195547	c 32	N83-18975 *	#
US-PATENT-APPL-SN-154663	c 02	N81-26073 *	#	US-PATENT-APPL-SN-178195	c 35	N82-24470 *	#	US-PATENT-APPL-SN-19572	c 35	N77-27368 *	#
US-PATENT-APPL-SN-154663	c 09	N82-29330 *	#	US-PATENT-APPL-SN-178213	c 25	N73-33267 *	#	US-PATENT-APPL-SN-19585	c 15	N72-25455 *	#
US-PATENT-APPL-SN-154725	c 37	N82-24493 *	#	US-PATENT-APPL-SN-178215	c 25	N70-34681 *	#	US-PATENT-APPL-SN-196399	c 07	N73-25161 *	#
US-PATENT-APPL-SN-154726	c 25	N81-25159 *	#	US-PATENT-APPL-SN-178721	c 03	N70-35408 *	#	US-PATENT-APPL-SN-196877	c 35	N84-17555 *	#
US-PATENT-APPL-SN-154930	c 44	N76-14600 *	#	US-PATENT-APPL-SN-178771	c 23	N75-14834 *	#	US-PATENT-APPL-SN-196888	c 38	N74-15130 *	#
US-PATENT-APPL-SN-154933	c 14	N73-25463 *	#	US-PATENT-APPL-SN-180230	c 33	N83-18996 *	#	US-PATENT-APPL-SN-196931	c 35	N74-17885 *	#
US-PATENT-APPL-SN-154935	c 11	N72-27262 *	#	US-PATENT-APPL-SN-180370	c 28	N70-33375 *	#	US-PATENT-APPL-SN-196970	c 15	N73-33383 *	#
US-PATENT-APPL-SN-155565	c 08	N73-25206 *	#	US-PATENT-APPL-SN-180374	c 28	N70-38181 *	#	US-PATENT-APPL-SN-197183	c 02	N76-22154 *	#
US-PATENT-APPL-SN-155584	c 09	N70-40123 *	#	US-PATENT-APPL-SN-180377	c 15	N70-36908 *	#	US-PATENT-APPL-SN-197548	c 09	N70-34502 *	#
US-PATENT-APPL-SN-155595	c 26	N73-28710 *	#	US-PATENT-APPL-SN-180379	c 21	N70-35395 *	#	US-PATENT-APPL-SN-197551	c 31	N70-34296 *	#
US-PATENT-APPL-SN-155596	c 15	N73-32361 *	#	US-PATENT-APPL-SN-180380	c 09	N70-38998 *	#	US-PATENT-APPL-SN-197553	c 08	N70-34778 *	#
US-PATENT-APPL-SN-155598	c 15	N73-28516 *	#	US-PATENT-APPL-SN-180381	c 21	N70-35089 *	#	US-PATENT-APPL-SN-197554	c 14	N70-35368 *	#
US-PATENT-APPL-SN-156724	c 21	N73-13843 *	#	US-PATENT-APPL-SN-180382	c 28	N70-38645 *	#	US-PATENT-APPL-SN-197689	c 31	N74-14133 *	#
US-PATENT-APPL-SN-156725	c 14	N73-27377 *	#	US-PATENT-APPL-SN-180384	c 11	N70-38675 *	#	US-PATENT-APPL-SN-197689	c 31	N75-13111 *	#
US-PATENT-APPL-SN-156778	c 17	N72-28535 *	#	US-PATENT-APPL-SN-180391	c 28	N70-38249 *	#	US-PATENT-APPL-SN-197870	c 14	N73-32322 *	#
US-PATENT-APPL-SN-156790	c 25	N82-29371 *	#	US-PATENT-APPL-SN-180392	c 09	N71-13530 *	#	US-PATENT-APPL-SN-198093	c 39	N83-20280 *	#
US-PATENT-APPL-SN-157150	c 37	N84-33808 *	#	US-PATENT-APPL-SN-180394	c 15	N70-38603 *	#	US-PATENT-APPL-SN-198285	c 09	N73-13208 *	#
US-PATENT-APPL-SN-158530	c 27	N83-19900 *	#	US-PATENT-APPL-SN-180395	c 15	N70-38947 *	#	US-PATENT-APPL-SN-198289	c 14	N73-32326 *	#
US-PATENT-APPL-SN-158914	c 11	N70-36913 *	#	US-PATENT-APPL-SN-180396	c 11	N70-38202 *	#	US-PATENT-APPL-SN-198355	c 05	N72-15098 *	#
US-PATENT-APPL-SN-158916	c 05	N70-41819 *	#	US-PATENT-APPL-SN-180473	c 28	N73-27699 *	#	US-PATENT-APPL-SN-198362	c 14	N73-28489 *	#
US-PATENT-APPL-SN-159804	c 11	N70-38196 *	#	US-PATENT-APPL-SN-180683	c 10	N73-25241 *	#	US-PATENT-APPL-SN-198379	c 15	N73-32359 *	#
US-PATENT-APPL-SN-159857	c 05	N73-26072 *	#	US-PATENT-APPL-SN-180963	c 14	N73-27378 *	#	US-PATENT-APPL-SN-198472	c 27	N74-12812 *	#
US-PATENT-APPL-SN-159966	c 31	N73-26876 *	#	US-PATENT-APPL-SN-181023	c 15	N73-26472 *	#	US-PATENT-APPL-SN-198763	c 31	N74-18124 *	#
US-PATENT-APPL-SN-160093	c 04	N78-17031 *	#	US-PATENT-APPL-SN-181024	c 07	N73-28117 *	#	US-PATENT-APPL-SN-198763	c 31	N74-32920 *	#
US-PATENT-APPL-SN-160859	c 32	N73-26910 *	#	US-PATENT-APPL-SN-181828	c 02	N70-34858 *	#	US-PATENT-APPL-SN-198885	c 05	N73-27062 *	#
US-PATENT-APPL-SN-160860	c 18	N73-32437 *	#	US-PATENT-APPL-SN-181829	c 31	N70-38010 *	#	US-PATENT-APPL-SN-199199	c 25	N71-29184 *	#
US-PATENT-APPL-SN-161028	c 14	N73-19420 *	#	US-PATENT-APPL-SN-182033	c 33	N73-27796 *	#	US-PATENT-APPL-SN-199202	c 14	N70-40239 *	#
US-PATENT-APPL-SN-161254	c 27	N82-28441 *	#	US-PATENT-APPL-SN-182399	c 07	N73-28013 *	#	US-PATENT-APPL-SN-19971	c 09	N70-33312 *	#
US-PATENT-APPL-SN-161255	c 28	N81-24280 *	#	US-PATENT-APPL-SN-182692	c 15	N70-38535 *	#	US-PATENT-APPL-SN-199765	c 33	N81-12330 *	#
US-PATENT-APPL-SN-161256	c 44	N82-32841 *	#	US-PATENT-APPL-SN-182696	c 21	N70-36938 *	#	US-PATENT-APPL-SN-199766	c 36	N84-28065 *	#
US-PATENT-APPL-SN-161257	c 37	N80-26660 *	#	US-PATENT-APPL-SN-182698	c 15	N70-38620 *	#	US-PATENT-APPL-SN-199767	c 33	N83-16626 *	#
US-PATENT-APPL-SN-162100	c 33	N74-14939 *	#	US-PATENT-APPL-SN-182699	c 28	N70-38504 *	#	US-PATENT-APPL-SN-199768	c 27	N81-15107 *	#
US-PATENT-APPL-SN-162101	c 14	N73-24473 *	#	US-PATENT-APPL-SN-182879	c 37	N82-32730 *	#	US-PATENT-APPL-SN-199768	c 27	N84-22746 *	#
US-PATENT-APPL-SN-162230	c 26	N72-28781 *	#	US-PATENT-APPL-SN-182880	c 37	N83-19091 *	#	US-PATENT-APPL-SN-199769			



US-PATENT-APPL-SN-201904	c 37	N74-15128 *	#	US-PATENT-APPL-SN-221670	c 35	N77-14408 *	#	US-PATENT-APPL-SN-238786	c 37	N83-26078 *	#
US-PATENT-APPL-SN-201904	c 37	N74-21064 *	#	US-PATENT-APPL-SN-221685	c 35	N74-21062 *	#	US-PATENT-APPL-SN-238790	c 44	N82-29708 *	#
US-PATENT-APPL-SN-202024	c 14	N70-34158 *	#	US-PATENT-APPL-SN-221714	c 09	N73-32110 *	#	US-PATENT-APPL-SN-238791	c 71	N84-14873 *	#
US-PATENT-APPL-SN-202029	c 11	N70-34786 *	#	US-PATENT-APPL-SN-221833	c 09	N73-27150 *	#	US-PATENT-APPL-SN-238826	c 28	N77-10213 *	#
US-PATENT-APPL-SN-202030	c 31	N71-10747 *	#	US-PATENT-APPL-SN-221845	c 01	N70-36410 *	#	US-PATENT-APPL-SN-238887	c 37	N81-22360 *	#
US-PATENT-APPL-SN-202228	c 34	N82-11399 *	#	US-PATENT-APPL-SN-22265	c 14	N72-21405 *	#	US-PATENT-APPL-SN-238888	c 37	N84-28082 *	#
US-PATENT-APPL-SN-202750	c 19	N74-21015 *	#	US-PATENT-APPL-SN-223003	c 33	N70-36846 *	#	US-PATENT-APPL-SN-239573	c 33	N74-10223 *	#
US-PATENT-APPL-SN-202769	c 05	N73-27941 *	#	US-PATENT-APPL-SN-22320	c 14	N72-11365 *	#	US-PATENT-APPL-SN-239574	c 09	N73-32107 *	#
US-PATENT-APPL-SN-203271	c 51	N74-15778 *	#	US-PATENT-APPL-SN-223560	c 10	N73-32144 *	#	US-PATENT-APPL-SN-239575	c 09	N74-19528 *	#
US-PATENT-APPL-SN-203405	c 02	N73-26006 *	#	US-PATENT-APPL-SN-224231	c 06	N83-10040 *	#	US-PATENT-APPL-SN-239576	c 33	N74-14935 *	#
US-PATENT-APPL-SN-203409	c 28	N70-38197 *	#	US-PATENT-APPL-SN-224231	c 06	N84-34443 *	#	US-PATENT-APPL-SN-239577	c 35	N74-13132 *	#
US-PATENT-APPL-SN-203411	c 33	N73-34812 *	#	US-PATENT-APPL-SN-224232	c 36	N83-29680 *	#	US-PATENT-APPL-SN-239803	c 70	N74-13436 *	#
US-PATENT-APPL-SN-20370	c 33	N78-33393 *	#	US-PATENT-APPL-SN-224489	c 31	N74-18089 *	#	US-PATENT-APPL-SN-240760	c 15	N71-16075 *	#
US-PATENT-APPL-SN-204015	c 09	N70-38201 *	#	US-PATENT-APPL-SN-225499	c 37	N84-12491 *	#	US-PATENT-APPL-SN-241061	c 06	N72-27151 *	#
US-PATENT-APPL-SN-205047	c 15	N73-32360 *	#	US-PATENT-APPL-SN-225501	c 44	N82-28780 *	#	US-PATENT-APPL-SN-241061	c 06	N73-33076 *	#
US-PATENT-APPL-SN-205470	c 08	N71-18752 *	#	US-PATENT-APPL-SN-226476	c 10	N73-32143 *	#	US-PATENT-APPL-SN-241085	c 14	N70-40238 *	#
US-PATENT-APPL-SN-205675	c 14	N73-30386 *	#	US-PATENT-APPL-SN-226477	c 74	N74-27866 *	#	US-PATENT-APPL-SN-241154	c 04	N84-27713 *	#
US-PATENT-APPL-SN-206266	c 76	N74-20329 *	#	US-PATENT-APPL-SN-226551	c 06	N73-26100 *	#	US-PATENT-APPL-SN-241155	c 27	N84-14324 *	#
US-PATENT-APPL-SN-206266	c 76	N75-25730 *	#	US-PATENT-APPL-SN-227682	c 14	N70-34161 *	#	US-PATENT-APPL-SN-24154	c 15	N70-35679 *	#
US-PATENT-APPL-SN-206279	c 02	N73-26005 *	#	US-PATENT-APPL-SN-227683	c 02	N70-36804 *	#	US-PATENT-APPL-SN-24154	c 15	N72-17450 *	#
US-PATENT-APPL-SN-206279	c 05	N76-29217 *	#	US-PATENT-APPL-SN-227692	c 14	N70-40003 *	#	US-PATENT-APPL-SN-24155	c 14	N73-26432 *	#
US-PATENT-APPL-SN-206508	c 33	N82-24422 *	#	US-PATENT-APPL-SN-227977	c 25	N76-18245 *	#	US-PATENT-APPL-SN-241614	c 10	N73-27171 *	#
US-PATENT-APPL-SN-206698	c 15	N73-30459 *	#	US-PATENT-APPL-SN-228049	c 37	N79-33467 *	#	US-PATENT-APPL-SN-241615	c 09	N73-32111 *	#
US-PATENT-APPL-SN-207135	c 35	N83-27184 *	#	US-PATENT-APPL-SN-228150	c 05	N73-32013 *	#	US-PATENT-APPL-SN-242027	c 52	N74-12778 *	#
US-PATENT-APPL-SN-207211	c 07	N73-30113 *	#	US-PATENT-APPL-SN-228163	c 44	N74-19693 *	#	US-PATENT-APPL-SN-242028	c 21	N73-30641 *	#
US-PATENT-APPL-SN-208478	c 07	N70-38200 *	#	US-PATENT-APPL-SN-228189	c 35	N74-11283 *	#	US-PATENT-APPL-SN-24224	c 09	N72-20200 *	#
US-PATENT-APPL-SN-208479	c 15	N70-34850 *	#	US-PATENT-APPL-SN-228190	c 23	N73-30666 *	#	US-PATENT-APPL-SN-242662	c 74	N74-15095 *	#
US-PATENT-APPL-SN-209535	c 28	N73-24783 *	#	US-PATENT-APPL-SN-228229	c 27	N77-31308 *	#	US-PATENT-APPL-SN-242790	c 06	N83-33882 *	#
US-PATENT-APPL-SN-20960	c 15	N72-17453 *	#	US-PATENT-APPL-SN-228507	c 11	N70-38182 *	#	US-PATENT-APPL-SN-242795	c 18	N83-20996 *	#
US-PATENT-APPL-SN-209618	c 33	N75-19520 *	#	US-PATENT-APPL-SN-228569	c 14	N71-16014 *	#	US-PATENT-APPL-SN-242795	c 37	N84-22957 *	#
US-PATENT-APPL-SN-209618	c 33	N75-25041 *	#	US-PATENT-APPL-SN-229128	c 14	N73-28490 *	#	US-PATENT-APPL-SN-242796	c 44	N83-13579 *	#
US-PATENT-APPL-SN-209801	c 08	N70-40125 *	#	US-PATENT-APPL-SN-229143	c 09	N72-21248 *	#	US-PATENT-APPL-SN-242797	c 74	N81-22894 *	#
US-PATENT-APPL-SN-210405	c 74	N84-11921 *	#	US-PATENT-APPL-SN-229143	c 33	N77-26387 *	#	US-PATENT-APPL-SN-243374	c 15	N77-10112 *	#
US-PATENT-APPL-SN-210481	c 02	N81-19016 *	#	US-PATENT-APPL-SN-229231	c 35	N83-34272 *	#	US-PATENT-APPL-SN-243682	c 74	N83-19596 *	#
US-PATENT-APPL-SN-210498	c 35	N84-12444 *	#	US-PATENT-APPL-SN-229233	c 27	N83-31855 *	#	US-PATENT-APPL-SN-243683	c 33	N81-22280 *	#
US-PATENT-APPL-SN-210506	c 39	N83-32081 *	#	US-PATENT-APPL-SN-229239	c 31	N83-31897 *	#	US-PATENT-APPL-SN-243683	c 33	N83-28319 *	#
US-PATENT-APPL-SN-210632	c 26	N83-10170 *	#	US-PATENT-APPL-SN-229286	c 33	N71-29052 *	#	US-PATENT-APPL-SN-243683	c 33	N84-14424 *	#
US-PATENT-APPL-SN-211332	c 02	N74-10034 *	#	US-PATENT-APPL-SN-229287	c 35	N78-29421 *	#	US-PATENT-APPL-SN-243683	c 33	N84-33660 *	#
US-PATENT-APPL-SN-211411	c 11	N73-20267 *	#	US-PATENT-APPL-SN-229354	c 62	N74-14920 *	#	US-PATENT-APPL-SN-243684	c 37	N84-12492 *	#
US-PATENT-APPL-SN-211464	c 28	N70-36910 *	#	US-PATENT-APPL-SN-229413	c 14	N73-32323 *	#	US-PATENT-APPL-SN-243685	c 07	N81-27096 *	#
US-PATENT-APPL-SN-212028	c 09	N73-14214 *	#	US-PATENT-APPL-SN-229683	c 37	N84-22958 *	#	US-PATENT-APPL-SN-244158	c 32	N74-20863 *	#
US-PATENT-APPL-SN-212165	c 14	N73-25460 *	#	US-PATENT-APPL-SN-229916	c 46	N74-13011 *	#	US-PATENT-APPL-SN-244440	c 21	N73-19630 *	#
US-PATENT-APPL-SN-212173	c 02	N71-13421 *	#	US-PATENT-APPL-SN-230613	c 05	N83-27975 *	#	US-PATENT-APPL-SN-244440	c 14	N73-32320 *	#
US-PATENT-APPL-SN-212174	c 15	N70-34859 *	#	US-PATENT-APPL-SN-231232	c 08	N72-22163 *	#	US-PATENT-APPL-SN-244519	c 37	N74-18125 *	#
US-PATENT-APPL-SN-212496	c 03	N70-36803 *	#	US-PATENT-APPL-SN-231520	c 27	N71-29155 *	#	US-PATENT-APPL-SN-244523	c 31	N73-30829 *	#
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US-PATENT-APPL-SN-21263	c 01	N71-12217 *	#	US-PATENT-APPL-SN-231604	c 28	N70-39925 *	#	US-PATENT-APPL-SN-245063	c 33	N74-11048 *	#
US-PATENT-APPL-SN-212900	c 14	N73-25462 *	#	US-PATENT-APPL-SN-231662	c 14	N73-30392 *	#	US-PATENT-APPL-SN-245279	c 25	N74-30502 *	#
US-PATENT-APPL-SN-212921	c 07	N73-20176 *	#	US-PATENT-APPL-SN-232021	c 04	N74-13420 *	#	US-PATENT-APPL-SN-245571	c 07	N84-22560 *	#
US-PATENT-APPL-SN-212949	c 35	N83-35338 *	#	US-PATENT-APPL-SN-232318	c 11	N71-15960 *	#	US-PATENT-APPL-SN-245941	c 33	N71-17897 *	#
US-PATENT-APPL-SN-212977	c 15	N73-30460 *	#	US-PATENT-APPL-SN-232914	c 15	N70-36412 *	#	US-PATENT-APPL-SN-246056	c 38	N74-15395 *	#
US-PATENT-APPL-SN-213004	c 14	N73-19421 *	#	US-PATENT-APPL-SN-233098	c 12	N73-25262 *	#	US-PATENT-APPL-SN-246294	c 27	N82-29454 *	#
US-PATENT-APPL-SN-213836	c 15	N70-38601 *	#	US-PATENT-APPL-SN-233173	c 12	N73-28144 *	#	US-PATENT-APPL-SN-246295	c 27	N82-29452 *	#
US-PATENT-APPL-SN-213949	c 07	N73-20175 *	#	US-PATENT-APPL-SN-233269	c 76	N82-30105 *	#	US-PATENT-APPL-SN-246772	c 44	N83-10494 *	#
US-PATENT-APPL-SN-214006	c 37	N74-18126 *	#	US-PATENT-APPL-SN-233270	c 52	N83-27578 *	#	US-PATENT-APPL-SN-246773	c 35	N83-29650 *	#
US-PATENT-APPL-SN-214084	c 37	N74-18123 *	#	US-PATENT-APPL-SN-233271	c 27	N83-34043 *	#	US-PATENT-APPL-SN-246774	c 34	N83-31993 *	#
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US-PATENT-APPL-SN-214089	c 35	N74-21018 *	#	US-PATENT-APPL-SN-233587	c 16	N72-22520 *	#	US-PATENT-APPL-SN-246778	c 36	N83-35350 *	#
US-PATENT-APPL-SN-214361	c 37	N83-32067 *	#	US-PATENT-APPL-SN-233743	c 37	N74-13179 *	#	US-PATENT-APPL-SN-247055	c 37	N74-11300 *	#
US-PATENT-APPL-SN-21508	c 08	N72-20176 *	#	US-PATENT-APPL-SN-234222	c 44	N81-24525 *	#	US-PATENT-APPL-SN-247090	c 37	N74-18128 *	#
US-PATENT-APPL-SN-21644	c 05	N72-22092 *	#	US-PATENT-APPL-SN-234223	c 35	N83-21312 *	#	US-PATENT-APPL-SN-247136	c 14	N71-30265 *	#
US-PATENT-APPL-SN-216710	c 12	N70-38997 *	#	US-PATENT-APPL-SN-234224	c 36	N83-34304 *	#	US-PATENT-APPL-SN-247419	c 14	N70-36907 *	#
US-PATENT-APPL-SN-216711	c 03	N70-34157 *	#	US-PATENT-APPL-SN-234225	c 33	N83-36357 *	#	US-PATENT-APPL-SN-247423	c 01	N71-13410 *	#
US-PATENT-APPL-SN-216939	c 14	N70-40400 *	#	US-PATENT-APPL-SN-234568	c 28	N70-34788 *	#	US-PATENT-APPL-SN-247434	c 25	N76-29379 *	#
US-PATENT-APPL-SN-217213	c 37	N74-11301 *	#	US-PATENT-APPL-SN-235162	c 08	N71-12501 *	#	US-PATENT-APPL-SN-247434	c 25	N76-27383 *	#
US-PATENT-APPL-SN-21732	c 15	N70-26819 *	#	US-PATENT-APPL-SN-235266	c 26	N73-32571 *	#	US-PATENT-APPL-SN-247481	c 05	N73-26071 *	#
US-PATENT-APPL-SN-217336	c 27	N82-29456 *	#	US-PATENT-APPL-SN-235268	c 36	N74-15145 *	#	US-PATENT-APPL-SN-248469	c 14	N73-32318 *	#
US-PATENT-APPL-SN-218585	c 27	N82-24340 *	#	US-PATENT-APPL-SN-235269	c 09	N73-30181 *	#	US-PATENT-APPL-SN-248471	c 31	N74-27902 *	#
US-PATENT-APPL-SN-218586	c 36	N81-22344 *	#	US-PATENT-APPL-SN-235295	c 09	N73-30185 *	#	US-PATENT-APPL-SN-248744	c 05	N83-19737 *	#
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US-PATENT-APPL-SN-218965	c 10	N73-32145 *	#	US-PATENT-APPL-SN-235363	c 74	N81-24907 *	#	US-PATENT-APPL-SN-248761	c 15	N74-27360 *	#
US-PATENT-APPL-SN-21906	c 09	N72-17157 *	#	US-PATENT-APPL-SN-235472	c 60	N84-28482 *	#	US-PATENT-APPL-SN-248985	c 03	N71-29129 *	#
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US-PATENT-APPL-SN-219436	c 15	N72-21489 *	#	US-PATENT-APPL-SN-235796	c 35	N82-28604 *	#	US-PATENT-APPL-SN-249537	c 14	N71-10797 *	#
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US-PATENT-APPL-SN-219640	c 74	N83-13978 *	#	US-PATENT-APPL-SN-235868	c 34	N83-29625 *	#	US-PATENT-APPL-SN-249540	c 15	N70-34861 *	#
US-PATENT-APPL-SN-219677	c 44	N82-31764 *	#	US-PATENT-APPL-SN-235957	c 14	N73-27376 *	#	US-PATENT-APPL-SN-249542	c 28	N70-41576 *	#
US-PATENT-APPL-SN-219678	c 44	N82-29709 *	#	US-PATENT-APPL-SN-235962	c 36	N74-11313 *	#	US-PATENT-APPL-SN-250451	c 08	N70-34787 *	#
US-PATENT-APPL-SN-219680	c 27	N82-28442 *	#	US-PATENT-APPL-SN-236052	c 14	N72-25428 *	#	US-PATENT-APPL-SN-250567	c 33	N71-24876 *	#
US-PATENT-APPL-SN-219681	c 24	N82-29362 *	#	US-PATENT-APPL-SN-236281	c 09	N73-20232 *	#	US-PATENT-APPL-SN-250585	c 62	N83-20634 *	#
US-PATENT-APPL-SN-219681	c 54	N84-11758 *	#	US-PATENT-APPL-SN-236285	c 08	N73-26175 *	#	US-PATENT-APPL-SN-250766	c 07	N73-30115 *	#
US-PATENT-APPL-SN-219722	c 03	N75-30132 *	#	US-PATENT-APPL-SN-236748	c 14	N70-40157 *	#	US-PATENT-APPL-SN-250974	c 31	N71-15664 *	#
US-PATENT-APPL-SN-219806	c 07	N74-28226 *	#	US-PATENT-APPL-SN-236749	c 15	N70-40180 *	#	US-PATENT-APPL-SN-251009	c 33	N84-18452 *	#
US-PATENT-APPL-SN-219968	c 3										

US-PATENT-APPL-SN-254177	c 10	N73-26230 *	#	US-PATENT-APPL-SN-272234	c 25	N83-13188 *	#	US-PATENT-APPL-SN-292340	c 52	N78-21750 *	#
US-PATENT-APPL-SN-254323	c 35	N78-15434 *	#	US-PATENT-APPL-SN-272408	c 33	N84-14422 *	#	US-PATENT-APPL-SN-292382	c 27	N74-17283 *	#
US-PATENT-APPL-SN-254575	c 25	N83-10126 *	#	US-PATENT-APPL-SN-272407	c 52	N83-21785 *	#	US-PATENT-APPL-SN-292477	c 15	N73-12495 *	#
US-PATENT-APPL-SN-254688	c 52	N83-27577 *	#	US-PATENT-APPL-SN-272837	c 71	N83-36848 *	#	US-PATENT-APPL-SN-292588	c 10	N71-29135 *	#
US-PATENT-APPL-SN-254847	c 15	N71-22674 *	#	US-PATENT-APPL-SN-272838	c 33	N82-25440 *	#	US-PATENT-APPL-SN-292681	c 33	N74-10194 *	#
US-PATENT-APPL-SN-254847	c 08	N72-21197 *	#	US-PATENT-APPL-SN-273222	c 33	N74-27683 *	#	US-PATENT-APPL-SN-292682	c 14	N73-32319 *	#
US-PATENT-APPL-SN-25488	c 08	N72-25208 *	#	US-PATENT-APPL-SN-273240	c 35	N74-16135 *	#	US-PATENT-APPL-SN-292685	c 32	N74-20884 *	#
US-PATENT-APPL-SN-255132	c 14	N71-15598 *	#	US-PATENT-APPL-SN-27340	c 15	N72-20442 *	#	US-PATENT-APPL-SN-292686	c 20	N74-31269 *	#
US-PATENT-APPL-SN-255317	c 52	N74-26826 *	#	US-PATENT-APPL-SN-273519	c 35	N75-25122 *	#	US-PATENT-APPL-SN-292698	c 09	N73-32109 *	#
US-PATENT-APPL-SN-256484	c 08	N70-34946 *	#	US-PATENT-APPL-SN-273534	c 09	N70-38712 *	#	US-PATENT-APPL-SN-293412	c 27	N83-34039 *	#
US-PATENT-APPL-SN-256493	c 20	N77-17143 *	#	US-PATENT-APPL-SN-274085	c 16	N71-28983 *	#	US-PATENT-APPL-SN-293414	c 37	N84-18560 *	#
US-PATENT-APPL-SN-257348	c 15	N70-36901 *	#	US-PATENT-APPL-SN-274348	c 60	N76-18800 *	#	US-PATENT-APPL-SN-293417	c 37	N82-26673 *	#
US-PATENT-APPL-SN-258152	c 35	N74-15090 *	#	US-PATENT-APPL-SN-274360	c 32	N74-20808 *	#	US-PATENT-APPL-SN-293418	c 26	N83-31795 *	#
US-PATENT-APPL-SN-258171	c 34	N74-27744 *	#	US-PATENT-APPL-SN-274705	c 44	N83-21503 *	#	US-PATENT-APPL-SN-293419	c 33	N82-24427 *	#
US-PATENT-APPL-SN-258331	c 03	N73-31888 *	#	US-PATENT-APPL-SN-274708	c 44	N83-21504 *	#	US-PATENT-APPL-SN-293725	c 69	N74-30888 *	#
US-PATENT-APPL-SN-258623	c 60	N83-32342 *	#	US-PATENT-APPL-SN-274708	c 35	N84-22928 *	#	US-PATENT-APPL-SN-293726	c 37	N74-21055 *	#
US-PATENT-APPL-SN-258931	c 14	N70-40203 *	#	US-PATENT-APPL-SN-275118	c 35	N74-18088 *	#	US-PATENT-APPL-SN-293727	c 33	N74-14958 *	#
US-PATENT-APPL-SN-258932	c 05	N70-36493 *	#	US-PATENT-APPL-SN-275809	c 75	N84-16993 *	#	US-PATENT-APPL-SN-293739	c 35	N74-28097 *	#
US-PATENT-APPL-SN-259056	c 27	N82-29455 *	#	US-PATENT-APPL-SN-276078	c 72	N84-16958 *	#	US-PATENT-APPL-SN-294727	c 73	N77-18891 *	#
US-PATENT-APPL-SN-259209	c 01	N83-35992 *	#	US-PATENT-APPL-SN-276599	c 74	N81-18888 *	#	US-PATENT-APPL-SN-294738	c 73	N78-28913 *	#
US-PATENT-APPL-SN-259210	c 32	N83-27085 *	#	US-PATENT-APPL-SN-276748	c 33	N83-34189 *	#	US-PATENT-APPL-SN-295855	c 23	N71-17802 *	#
US-PATENT-APPL-SN-259211	c 44	N84-14583 *	#	US-PATENT-APPL-SN-276749	c 74	N84-23247 *	#	US-PATENT-APPL-SN-298137	c 74	N84-28500 *	#
US-PATENT-APPL-SN-259212	c 35	N84-22931 *	#	US-PATENT-APPL-SN-277404	c 05	N70-39922 *	#	US-PATENT-APPL-SN-298622	c 44	N78-31688 *	#
US-PATENT-APPL-SN-259487	c 33	N70-36847 *	#	US-PATENT-APPL-SN-277438	c 37	N74-25888 *	#	US-PATENT-APPL-SN-298879	c 26	N71-18084 *	#
US-PATENT-APPL-SN-260087	c 21	N71-21688 *	#	US-PATENT-APPL-SN-277833	c 03	N70-41580 *	#	US-PATENT-APPL-SN-297127	c 33	N74-27705 *	#
US-PATENT-APPL-SN-260093	c 25	N74-26948 *	#	US-PATENT-APPL-SN-277804	c 28	N74-27425 *	#	US-PATENT-APPL-SN-297128	c 32	N74-26654 *	#
US-PATENT-APPL-SN-260241	c 74	N74-21304 *	#	US-PATENT-APPL-SN-277861	c 33	N70-36817 *	#	US-PATENT-APPL-SN-297436	c 33	N78-11314 *	#
US-PATENT-APPL-SN-261183	c 09	N74-30597 *	#	US-PATENT-APPL-SN-278780	c 15	N70-34684 *	#	US-PATENT-APPL-SN-297486	c 35	N83-24828 *	#
US-PATENT-APPL-SN-261912	c 14	N70-34818 *	#	US-PATENT-APPL-SN-2782	c 14	N73-33368 *	#	US-PATENT-APPL-SN-297488	c 37	N84-14551 *	#
US-PATENT-APPL-SN-261917	c 09	N70-40272 *	#	US-PATENT-APPL-SN-278648	c 08	N71-21042 *	#	US-PATENT-APPL-SN-297524	c 33	N84-16824 *	#
US-PATENT-APPL-SN-261918	c 28	N70-41447 *	#	US-PATENT-APPL-SN-280029	c 35	N74-15126 *	#	US-PATENT-APPL-SN-297524	c 33	N84-22888 *	#
US-PATENT-APPL-SN-262430	c 35	N74-18323 *	#	US-PATENT-APPL-SN-280031	c 26	N73-26752 *	#	US-PATENT-APPL-SN-298156	c 37	N75-13261 *	#
US-PATENT-APPL-SN-262588	c 14	N71-28958 *	#	US-PATENT-APPL-SN-280032	c 35	N74-15093 *	#	US-PATENT-APPL-SN-298156	c 26	N75-19408 *	#
US-PATENT-APPL-SN-262588	c 62	N76-31946 *	#	US-PATENT-APPL-SN-280151	c 27	N83-38220 *	#	US-PATENT-APPL-SN-298157	c 33	N74-21850 *	#
US-PATENT-APPL-SN-263230	c 33	N74-20880 *	#	US-PATENT-APPL-SN-280153	c 51	N83-17045 *	#	US-PATENT-APPL-SN-298799	c 14	N71-15892 *	#
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US-PATENT-APPL-SN-263735	c 02	N70-33286 *	#	US-PATENT-APPL-SN-280155	c 24	N84-11214 *	#	US-PATENT-APPL-SN-298842	c 15	N71-15918 *	#
US-PATENT-APPL-SN-263735	c 02	N70-34858 *	#	US-PATENT-APPL-SN-280305	c 34	N74-23039 *	#	US-PATENT-APPL-SN-298917	c 15	N73-13465 *	#
US-PATENT-APPL-SN-263815	c 09	N74-17955 *	#	US-PATENT-APPL-SN-280362	c 14	N71-28935 *	#	US-PATENT-APPL-SN-298917	c 26	N74-10521 *	#
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 US-PATENT-APPL-SN-348422 ..... c 27 N78-19311 \* #  
 US-PATENT-APPL-SN-348600 ..... c 28 N71-29154 \* #  
 US-PATENT-APPL-SN-348787 ..... c 33 N75-19521 \* #  
 US-PATENT-APPL-SN-349778 ..... c 09 N70-40234 \* #  
 US-PATENT-APPL-SN-349781 ..... c 31 N71-15647 \* #  
 US-PATENT-APPL-SN-349782 ..... c 09 N71-16088 \* #  
 US-PATENT-APPL-SN-34989 ..... c 36 N74-13205 \* #  
 US-PATENT-APPL-SN-350249 ..... c 36 N75-15028 \* #  
 US-PATENT-APPL-SN-350250 ..... c 27 N75-27160 \* #  
 US-PATENT-APPL-SN-350300 ..... c 31 N74-32920 \* #  
 US-PATENT-APPL-SN-350471 ..... c 35 N82-26634 \* #  
 US-PATENT-APPL-SN-350472 ..... c 33 N84-14424 \* #  
 US-PATENT-APPL-SN-350473 ..... c 07 N84-22559 \* #  
 US-PATENT-APPL-SN-350474 ..... c 35 N84-22928 \* #  
 US-PATENT-APPL-SN-350475 ..... c 35 N84-28017 \* #  
 US-PATENT-APPL-SN-350478 ..... c 26 N84-22734 \* #  
 US-PATENT-APPL-SN-350477 ..... c 35 N84-33765 \* #  
 US-PATENT-APPL-SN-351259 ..... c 15 N71-10672 \* #  
 US-PATENT-APPL-SN-351929 ..... c 33 N75-14957 \* #  
 US-PATENT-APPL-SN-351950 ..... c 33 N75-27249 \* #

US-PATENT-APPL-SN-352381 ..... c 20 N75-18310 \* #  
 US-PATENT-APPL-SN-352381 ..... c 37 N78-14461 \* #  
 US-PATENT-APPL-SN-352382 ..... c 60 N75-13539 \* #  
 US-PATENT-APPL-SN-352383 ..... c 35 N75-16783 \* #  
 US-PATENT-APPL-SN-352400 ..... c 26 N71-10607 \* #  
 US-PATENT-APPL-SN-352821 ..... c 44 N84-28205 \* #  
 US-PATENT-APPL-SN-352827 ..... c 35 N84-28015 \* #  
 US-PATENT-APPL-SN-352931 ..... c 35 N84-28015 \* #  
 US-PATENT-APPL-SN-353162 ..... c 33 N75-26243 \* #  
 US-PATENT-APPL-SN-353832 ..... c 15 N71-13789 \* #  
 US-PATENT-APPL-SN-353834 ..... c 15 N70-41829 \* #  
 US-PATENT-APPL-SN-353837 ..... c 02 N70-34160 \* #  
 US-PATENT-APPL-SN-353644 ..... c 07 N71-23098 \* #  
 US-PATENT-APPL-SN-353845 ..... c 15 N71-15922 \* #  
 US-PATENT-APPL-SN-354060 ..... c 74 N76-19935 \* #  
 US-PATENT-APPL-SN-354126 ..... c 37 N82-22496 \* #  
 US-PATENT-APPL-SN-354182 ..... c 10 N71-20841 \* #  
 US-PATENT-APPL-SN-354406 ..... c 52 N76-14757 \* #  
 US-PATENT-APPL-SN-354407 ..... c 33 N74-22665 \* #  
 US-PATENT-APPL-SN-354408 ..... c 35 N75-19614 \* #  
 US-PATENT-APPL-SN-354611 ..... c 25 N74-26947 \* #  
 US-PATENT-APPL-SN-354612 ..... c 35 N75-35004 \* #  
 US-PATENT-APPL-SN-355126 ..... c 17 N71-15844 \* #  
 US-PATENT-APPL-SN-355129 ..... c 14 N70-41857 \* #  
 US-PATENT-APPL-SN-355130 ..... c 15 N70-40354 \* #  
 US-PATENT-APPL-SN-356488 ..... c 08 N71-19544 \* #  
 US-PATENT-APPL-SN-356554 ..... c 24 N75-33181 \* #  
 US-PATENT-APPL-SN-356555 ..... c 37 N75-19885 \* #  
 US-PATENT-APPL-SN-356664 ..... c 31 N75-12161 \* #  
 US-PATENT-APPL-SN-356692 ..... c 15 N70-41371 \* #  
 US-PATENT-APPL-SN-357126 ..... c 35 N74-34857 \* #  
 US-PATENT-APPL-SN-357312 ..... c 27 N78-18229 \* #  
 US-PATENT-APPL-SN-357334 ..... c 03 N71-12258 \* #  
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 US-PATENT-APPL-SN-357337 ..... c 15 N71-10782 \* #  
 US-PATENT-APPL-SN-357340 ..... c 23 N71-15673 \* #  
 US-PATENT-APPL-SN-358088 ..... c 35 N84-33787 \* #  
 US-PATENT-APPL-SN-358089 ..... c 71 N84-23233 \* #  
 US-PATENT-APPL-SN-358127 ..... c 05 N71-12335 \* #  
 US-PATENT-APPL-SN-358398 ..... c 36 N84-22944 \* #  
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 US-PATENT-APPL-SN-359156 ..... c 14 N75-24794 \* #  
 US-PATENT-APPL-SN-359157 ..... c 35 N74-18090 \* #  
 US-PATENT-APPL-SN-359382 ..... c 32 N82-28502 \* #  
 US-PATENT-APPL-SN-359388 ..... c 44 N83-32177 \* #  
 US-PATENT-APPL-SN-359532 ..... c 15 N71-28959 \* #  
 US-PATENT-APPL-SN-359626 ..... c 35 N84-28018 \* #  
 US-PATENT-APPL-SN-359627 ..... c 35 N82-26631 \* #  
 US-PATENT-APPL-SN-359657 ..... c 07 N74-32418 \* #  
 US-PATENT-APPL-SN-359958 ..... c 37 N74-26978 \* #  
 US-PATENT-APPL-SN-360180 ..... c 17 N71-16026 \* #  
 US-PATENT-APPL-SN-360182 ..... c 31 N70-36654 \* #  
 US-PATENT-APPL-SN-360878 ..... c 03 N71-11051 \* #  
 US-PATENT-APPL-SN-361215 ..... c 27 N84-14323 \* #  
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 US-PATENT-APPL-SN-361217 ..... c 71 N82-27087 \* #  
 US-PATENT-APPL-SN-361686 ..... c 33 N75-30428 \* #  
 US-PATENT-APPL-SN-361711 ..... c 24 N82-26387 \* #  
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 US-PATENT-APPL-SN-361906 ..... c 33 N74-20861 \* #  
 US-PATENT-APPL-SN-361907 ..... c 35 N74-27865 \* #  
 US-PATENT-APPL-SN-362145 ..... c 32 N75-26194 \* #  
 US-PATENT-APPL-SN-362148 ..... c 33 N75-18479 \* #  
 US-PATENT-APPL-SN-362261 ..... c 14 N73-32325 \* #  
 US-PATENT-APPL-SN-362278 ..... c 37 N78-17385 \* #  
 US-PATENT-APPL-SN-363130 ..... c 25 N81-19244 \* #  
 US-PATENT-APPL-SN-363348 ..... c 05 N70-41581 \* #  
 US-PATENT-APPL-SN-363653 ..... c 07 N70-41331 \* #  
 US-PATENT-APPL-SN-363654 ..... c 07 N70-41372 \* #  
 US-PATENT-APPL-SN-363691 ..... c 20 N76-14190 \* #  
 US-PATENT-APPL-SN-364041 ..... c 33 N82-26573 \* #  
 US-PATENT-APPL-SN-364072 ..... c 70 N84-28565 \* #  
 US-PATENT-APPL-SN-364082 ..... c 76 N83-35888 \* #  
 US-PATENT-APPL-SN-364083 ..... c 37 N83-34323 \* #  
 US-PATENT-APPL-SN-364094 ..... c 37 N84-28083 \* #  
 US-PATENT-APPL-SN-364097 ..... c 71 N82-27086 \* #  
 US-PATENT-APPL-SN-364128 ..... c 36 N84-22943 \* #  
 US-PATENT-APPL-SN-364887 ..... c 09 N71-10673 \* #  
 US-PATENT-APPL-SN-365244 ..... c 37 N78-17386 \* #  
 US-PATENT-APPL-SN-36531 ..... c 07 N72-25174 \* #  
 US-PATENT-APPL-SN-36534 ..... c 21 N73-14692 \* #  
 US-PATENT-APPL-SN-3654 ..... c 35 N77-27367 \* #  
 US-PATENT-APPL-SN-365644 ..... c 35 N74-26946 \* #  
 US-PATENT-APPL-SN-365850 ..... c 27 N83-18908 \* #  
 US-PATENT-APPL-SN-366025 ..... c 27 N84-22744 \* #  
 US-PATENT-APPL-SN-366103 ..... c 76 N84-35112 \* #  
 US-PATENT-APPL-SN-366226 ..... c 10 N71-16057 \* #  
 US-PATENT-APPL-SN-367121 ..... c 24 N82-26389 \* #  
 US-PATENT-APPL-SN-367132 ..... c 74 N82-27121 \* #  
 US-PATENT-APPL-SN-367134 ..... c 44 N83-34449 \* #  
 US-PATENT-APPL-SN-367136 ..... c 35 N82-26630 \* #  
 US-PATENT-APPL-SN-367187 ..... c 04 N84-14132 \* #  
 US-PATENT-APPL-SN-367268 ..... c 05 N75-25914 \* #  
 US-PATENT-APPL-SN-367293 ..... c 38 N75-19655 \* #  
 US-PATENT-APPL-SN-367294 ..... c 76 N75-12810 \* #  
 US-PATENT-APPL-SN-367606 ..... c 75 N75-13625 \* #

US-PATENT-APPL-SN-367606	c 75	N76-17851 *	#	US-PATENT-APPL-SN-385059	c 33	N77-21315 *	#	US-PATENT-APPL-SN-398885	c 27	N76-15310 *	#
US-PATENT-APPL-SN-368123	c 09	N71-10618 *	#	US-PATENT-APPL-SN-385220	c 36	N82-28618 *	#	US-PATENT-APPL-SN-398886	c 07	N75-24736 *	#
US-PATENT-APPL-SN-368187	c 54	N84-11758 *	#	US-PATENT-APPL-SN-385520	c 14	N71-23037 *	#	US-PATENT-APPL-SN-398901	c 37	N75-25186 *	#
US-PATENT-APPL-SN-368188	c 33	N84-33663 *	#	US-PATENT-APPL-SN-385522	c 34	N75-33342 *	#	US-PATENT-APPL-SN-399074	c 33	N83-13360 *	#
US-PATENT-APPL-SN-368189	c 18	N84-22605 *	#	US-PATENT-APPL-SN-385526	c 12	N71-16031 *	#	US-PATENT-APPL-SN-399419	c 21	N71-23289 *	#
US-PATENT-APPL-SN-368618	c 23	N72-22673 *	#	US-PATENT-APPL-SN-385527	c 31	N71-17729 *	#	US-PATENT-APPL-SN-400467	c 33	N75-30431 *	#
US-PATENT-APPL-SN-368626	c 28	N72-23810 *	#	US-PATENT-APPL-SN-385530	c 09	N71-10798 *	#	US-PATENT-APPL-SN-400613	c 15	N71-21528 *	#
US-PATENT-APPL-SN-369334	c 21	N71-22880 *	#	US-PATENT-APPL-SN-386467	c 14	N70-40233 *	#	US-PATENT-APPL-SN-400617	c 31	N71-17629 *	#
US-PATENT-APPL-SN-369336	c 09	N71-10659 *	#	US-PATENT-APPL-SN-386789	c 35	N75-12271 *	#	US-PATENT-APPL-SN-400857	c 31	N79-21225 *	#
US-PATENT-APPL-SN-369337	c 15	N70-41811 *	#	US-PATENT-APPL-SN-386790	c 09	N75-12968 *	#	US-PATENT-APPL-SN-401224	c 38	N78-17396 *	#
US-PATENT-APPL-SN-369338	c 08	N71-28925 *	#	US-PATENT-APPL-SN-386793	c 35	N75-25124 *	#	US-PATENT-APPL-SN-401225	c 38	N78-17395 *	#
US-PATENT-APPL-SN-369640	c 32	N70-41370 *	#	US-PATENT-APPL-SN-386800	c 15	N71-21404 *	#	US-PATENT-APPL-SN-401282	c 16	N82-31398 *	#
US-PATENT-APPL-SN-3696	c 10	N72-20224 *	#	US-PATENT-APPL-SN-387094	c 37	N77-19457 *	#	US-PATENT-APPL-SN-401288	c 37	N84-28081 *	#
US-PATENT-APPL-SN-370134	c 30	N70-40353 *	#	US-PATENT-APPL-SN-387095	c 37	N75-33395 *	#	US-PATENT-APPL-SN-401468	c 09	N75-24758 *	#
US-PATENT-APPL-SN-370135	c 11	N70-41677 *	#	US-PATENT-APPL-SN-387266	c 35	N75-27328 *	#	US-PATENT-APPL-SN-401919	c 24	N76-24363 *	#
US-PATENT-APPL-SN-370255	c 33	N75-18477 *	#	US-PATENT-APPL-SN-387332	c 15	N70-33226 *	#	US-PATENT-APPL-SN-401920	c 37	N75-25185 *	#
US-PATENT-APPL-SN-370271	c 32	N75-24981 *	#	US-PATENT-APPL-SN-387342	c 37	N76-18457 *	#	US-PATENT-APPL-SN-401921	c 24	N76-14203 *	#
US-PATENT-APPL-SN-37050	c 33	N74-26732 *	#	US-PATENT-APPL-SN-387622	c 32	N83-30832 *	#	US-PATENT-APPL-SN-402205	c 33	N83-24769 *	#
US-PATENT-APPL-SN-370582	c 18	N76-14186 *	#	US-PATENT-APPL-SN-387646	c 37	N82-29606 *	#	US-PATENT-APPL-SN-402385	c 31	N71-17730 *	#
US-PATENT-APPL-SN-370872	c 37	N74-32918 *	#	US-PATENT-APPL-SN-387647	c 36	N82-28619 *	#	US-PATENT-APPL-SN-402865	c 33	N74-32660 *	#
US-PATENT-APPL-SN-370899	c 23	N71-29049 *	#	US-PATENT-APPL-SN-387648	c 37	N82-28642 *	#	US-PATENT-APPL-SN-402867	c 35	N75-33367 *	#
US-PATENT-APPL-SN-370999	c 74	N78-15879 *	#	US-PATENT-APPL-SN-387649	c 09	N82-29331 *	#	US-PATENT-APPL-SN-402868	c 35	N75-19612 *	#
US-PATENT-APPL-SN-371322	c 44	N76-14600 *	#	US-PATENT-APPL-SN-387728	c 37	N84-28084 *	#	US-PATENT-APPL-SN-402978	c 10	N71-23084 *	#
US-PATENT-APPL-SN-371351	c 76	N84-35113 *	#	US-PATENT-APPL-SN-388023	c 10	N70-41964 *	#	US-PATENT-APPL-SN-403154	c 37	N77-22480 *	#
US-PATENT-APPL-SN-371352	c 52	N84-11744 *	#	US-PATENT-APPL-SN-388024	c 32	N71-17609 *	#	US-PATENT-APPL-SN-403371	c 27	N82-33523 *	#
US-PATENT-APPL-SN-371353	c 37	N82-26676 *	#	US-PATENT-APPL-SN-38814	c 15	N72-11385 *	#	US-PATENT-APPL-SN-403378	c 26	N84-33555 *	#
US-PATENT-APPL-SN-371354	c 24	N82-26385 *	#	US-PATENT-APPL-SN-38816	c 70	N74-13436 *	#	US-PATENT-APPL-SN-403694	c 54	N75-12616 *	#
US-PATENT-APPL-SN-371856	c 15	N70-42033 *	#	US-PATENT-APPL-SN-38818	c 74	N78-15879 *	#	US-PATENT-APPL-SN-403695	c 35	N77-20399 *	#
US-PATENT-APPL-SN-371857	c 07	N70-41680 *	#	US-PATENT-APPL-SN-388666	c 31	N70-41855 *	#	US-PATENT-APPL-SN-403847	c 31	N83-35176 *	#
US-PATENT-APPL-SN-372148	c 35	N74-26949 *	#	US-PATENT-APPL-SN-388967	c 10	N71-23271 *	#	US-PATENT-APPL-SN-403848	c 32	N82-33593 *	#
US-PATENT-APPL-SN-372149	c 37	N75-15050 *	#	US-PATENT-APPL-SN-389916	c 18	N75-27041 *	#	US-PATENT-APPL-SN-403849	c 35	N82-33681 *	#
US-PATENT-APPL-SN-372279	c 35	N84-28019 *	#	US-PATENT-APPL-SN-389929	c 33	N75-25040 *	#	US-PATENT-APPL-SN-403959	c 14	N70-41994 *	#
US-PATENT-APPL-SN-372438	c 30	N71-17788 *	#	US-PATENT-APPL-SN-390049	c 37	N76-18448 *	#	US-PATENT-APPL-SN-403960	c 14	N70-41366 *	#
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US-PATENT-APPL-SN-372727	c 31	N70-36845 *	#	US-PATENT-APPL-SN-390250	c 21	N70-41856 *	#	US-PATENT-APPL-SN-404809	c 27	N84-27885 *	#
US-PATENT-APPL-SN-372730	c 28	N71-28850 *	#	US-PATENT-APPL-SN-390251	c 07	N71-23026 *	#	US-PATENT-APPL-SN-405341	c 37	N76-15460 *	#
US-PATENT-APPL-SN-373587	c 33	N74-32711 *	#	US-PATENT-APPL-SN-390468	c 24	N75-13032 *	#	US-PATENT-APPL-SN-405342	c 35	N75-19615 *	#
US-PATENT-APPL-SN-373588	c 33	N75-19515 *	#	US-PATENT-APPL-SN-390468	c 38	N75-19652 *	#	US-PATENT-APPL-SN-405346	c 37	N75-30562 *	#
US-PATENT-APPL-SN-373591	c 31	N71-15692 *	#	US-PATENT-APPL-SN-391343	c 05	N69-21473 *	#	US-PATENT-APPL-SN-405829	c 09	N71-10677 *	#
US-PATENT-APPL-SN-373770	c 35	N84-34705 *	#	US-PATENT-APPL-SN-39185	c 16	N72-25485 *	#	US-PATENT-APPL-SN-405830	c 14	N71-10618 *	#
US-PATENT-APPL-SN-373771	c 35	N84-22934 *	#	US-PATENT-APPL-SN-392092	c 51	N84-28361 *	#	US-PATENT-APPL-SN-405832	c 21	N71-15582 *	#
US-PATENT-APPL-SN-373839	c 33	N84-22887 *	#	US-PATENT-APPL-SN-392093	c 33	N82-28549 *	#	US-PATENT-APPL-SN-406097	c 14	N71-21088 *	#
US-PATENT-APPL-SN-374421	c 27	N76-24405 *	#	US-PATENT-APPL-SN-392094	c 37	N82-28640 *	#	US-PATENT-APPL-SN-406296	c 25	N79-10163 *	#
US-PATENT-APPL-SN-374422	c 32	N75-24882 *	#	US-PATENT-APPL-SN-392096	c 02	N84-11136 *	#	US-PATENT-APPL-SN-406715	c 35	N75-15014 *	#
US-PATENT-APPL-SN-374423	c 38	N75-31427 *	#	US-PATENT-APPL-SN-392103	c 44	N84-28204 *	#	US-PATENT-APPL-SN-406820	c 74	N83-13982 *	#
US-PATENT-APPL-SN-374424	c 74	N75-12732 *	#	US-PATENT-APPL-SN-392104	c 37	N82-28641 *	#	US-PATENT-APPL-SN-407240	c 27	N83-34041 *	#
US-PATENT-APPL-SN-374441	c 35	N75-19616 *	#	US-PATENT-APPL-SN-392823	c 25	N74-33378 *	#	US-PATENT-APPL-SN-407323	c 32	N75-21485 *	#
US-PATENT-APPL-SN-374583	c 33	N74-29556 *	#	US-PATENT-APPL-SN-392865	c 18	N71-22998 *	#	US-PATENT-APPL-SN-407595	c 28	N70-41992 *	#
US-PATENT-APPL-SN-374810	c 27	N80-32514 *	#	US-PATENT-APPL-SN-392969	c 09	N71-23573 *	#	US-PATENT-APPL-SN-407599	c 14	N71-21091 *	#
US-PATENT-APPL-SN-375401	c 17	N71-16025 *	#	US-PATENT-APPL-SN-392970	c 32	N70-41387 *	#	US-PATENT-APPL-SN-407603	c 05	N71-11189 *	#
US-PATENT-APPL-SN-375405	c 31	N71-15675 *	#	US-PATENT-APPL-SN-392973	c 07	N71-23001 *	#	US-PATENT-APPL-SN-408268	c 25	N83-18826 *	#
US-PATENT-APPL-SN-375620	c 32	N82-26523 *	#	US-PATENT-APPL-SN-392992	c 15	N71-23052 *	#	US-PATENT-APPL-SN-408435	c 15	N71-28937 *	#
US-PATENT-APPL-SN-375674	c 28	N70-41582 *	#	US-PATENT-APPL-SN-39342	c 09	N72-25252 *	#	US-PATENT-APPL-SN-408438	c 07	N71-22750 *	#
US-PATENT-APPL-SN-375680	c 10	N71-28739 *	#	US-PATENT-APPL-SN-39343	c 34	N74-18552 *	#	US-PATENT-APPL-SN-408442	c 10	N71-23662 *	#
US-PATENT-APPL-SN-375682	c 31	N70-41588 *	#	US-PATENT-APPL-SN-39344	c 14	N72-25409 *	#	US-PATENT-APPL-SN-408575	c 35	N83-32026 *	#
US-PATENT-APPL-SN-375684	c 44	N82-26780 *	#	US-PATENT-APPL-SN-393451	c 02	N70-42016 *	#	US-PATENT-APPL-SN-409126	c 16	N71-21068 *	#
US-PATENT-APPL-SN-375784	c 26	N82-26431 *	#	US-PATENT-APPL-SN-393456	c 33	N83-16633 *	#	US-PATENT-APPL-SN-409678	c 09	N84-27749 *	#
US-PATENT-APPL-SN-376306	c 25	N84-12282 *	#	US-PATENT-APPL-SN-393461	c 31	N71-17891 *	#	US-PATENT-APPL-SN-409679	c 33	N82-33634 *	#
US-PATENT-APPL-SN-377146	c 14	N71-23041 *	#	US-PATENT-APPL-SN-393464	c 23	N71-21821 *	#	US-PATENT-APPL-SN-409679	c 33	N84-22884 *	#
US-PATENT-APPL-SN-377777	c 32	N70-42003 *	#	US-PATENT-APPL-SN-393523	c 12	N75-24774 *	#	US-PATENT-APPL-SN-409680	c 35	N83-13425 *	#
US-PATENT-APPL-SN-377780	c 11	N71-10604 *	#	US-PATENT-APPL-SN-393524	c 60	N76-21914 *	#	US-PATENT-APPL-SN-409990	c 35	N75-27330 *	#
US-PATENT-APPL-SN-377784	c 28	N70-41311 *	#	US-PATENT-APPL-SN-393525	c 31	N74-32917 *	#	US-PATENT-APPL-SN-409991	c 33	N75-13139 *	#
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US-PATENT-APPL-SN-377892	c 33	N83-24763 *	#	US-PATENT-APPL-SN-393527	c 15	N75-13007 *	#	US-PATENT-APPL-SN-410326	c 09	N71-21449 *	#
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US-PATENT-APPL-SN-523991	c 35	N84-20808	*	US-PATENT-APPL-SN-542157	c 20	N76-21276	*	US-PATENT-APPL-SN-559845	c 35	N78-29551	*
US-PATENT-APPL-SN-524746	c 14	N73-28491	*	US-PATENT-APPL-SN-542192	c 26	N75-27126	*	US-PATENT-APPL-SN-559846	c 34	N79-13289	*
US-PATENT-APPL-SN-526438	c 25	N76-22323	*	US-PATENT-APPL-SN-542232	c 36	N84-12463	*	US-PATENT-APPL-SN-559846	c 34	N80-24573	*
US-PATENT-APPL-SN-526448	c 44	N78-14602	*	US-PATENT-APPL-SN-542257	c 44	N84-32910	*	US-PATENT-APPL-SN-559847	c 34	N79-13288	*
US-PATENT-APPL-SN-526449	c 54	N76-14804	*	US-PATENT-APPL-SN-54270	c 07	N72-25173	*	US-PATENT-APPL-SN-559988	c 71	N84-16949	*
US-PATENT-APPL-SN-526450	c 35	N77-14409	*	US-PATENT-APPL-SN-542719	c 23	N71-23976	*	US-PATENT-APPL-SN-560035	c 24	N84-15203	*
US-PATENT-APPL-SN-526631	c 10	N71-19471	*	US-PATENT-APPL-SN-54271	c 02	N73-19004	*	US-PATENT-APPL-SN-560891	c 73	N78-18920	*
US-PATENT-APPL-SN-526664	c 07	N69-24334	*	US-PATENT-APPL-SN-542754	c 34	N76-18374	*	US-PATENT-APPL-SN-560967	c 15	N69-21922	*
US-PATENT-APPL-SN-526665	c 14	N69-24331	*	US-PATENT-APPL-SN-543206	c 05	N71-23159	*	US-PATENT-APPL-SN-560968	c 10	N71-24883	*
US-PATENT-APPL-SN-526739	c 37	N83-36484	*	US-PATENT-APPL-SN-543774	c 06	N69-39733	*	US-PATENT-APPL-SN-560969	c 14	N71-15622	*
US-PATENT-APPL-SN-526740	c 25	N83-36120	*	US-PATENT-APPL-SN-544611	c 33	N76-15373	*	US-PATENT-APPL-SN-561020	c 44	N76-23675	*
US-PATENT-APPL-SN-526741	c 09	N84-12193	*	US-PATENT-APPL-SN-544895	c 07	N71-28809	*	US-PATENT-APPL-SN-561223	c 14	N71-20427	*
US-PATENT-APPL-SN-526750	c 71	N83-36847	*	US-PATENT-APPL-SN-544899	c 09	N71-20569	*	US-PATENT-APPL-SN-561369	c 35	N84-33766	*
US-PATENT-APPL-SN-526768	c 25	N83-36122	*	US-PATENT-APPL-SN-545223	c 03	N71-11056	*	US-PATENT-APPL-SN-561429	c 24	N84-22699	*
US-PATENT-APPL-SN-526770	c 35	N84-12448	*	US-PATENT-APPL-SN-545224	c 15	N69-21362	*	US-PATENT-APPL-SN-561431	c 24	N84-22698	*
US-PATENT-APPL-SN-526832	c 25	N83-36121	*	US-PATENT-APPL-SN-545226	c 07	N69-39736	*	US-PATENT-APPL-SN-561432	c 20	N84-15183	*
US-PATENT-APPL-SN-527331	c 17	N73-28573	*	US-PATENT-APPL-SN-545229	c 03	N69-21469	*	US-PATENT-APPL-SN-561433	c 71	N84-16948	*
US-PATENT-APPL-SN-527613	c 37	N83-36485	*	US-PATENT-APPL-SN-545282	c 35	N76-24524	*	US-PATENT-APPL-SN-561434	c 24	N84-22701	*
US-PATENT-APPL-SN-527727	c 02	N76-16014	*	US-PATENT-APPL-SN-545283	c 32	N77-12239	*	US-PATENT-APPL-SN-561435	c 24	N84-22700	*
US-PATENT-APPL-SN-527728	c 37	N76-18458	*	US-PATENT-APPL-SN-545284	c 34	N76-27517	*	US-PATENT-APPL-SN-561702	c 27	N84-16340	*
US-PATENT-APPL-SN-527790	c 33	N76-14372	*	US-PATENT-APPL-SN-54540	c 15	N72-29488	*	US-PATENT-APPL-SN-561704	c 32	N77-10392	*
US-PATENT-APPL-SN-527818	c 28	N83-35158	*	US-PATENT-APPL-SN-54540	c 37	N74-15125	*	US-PATENT-APPL-SN-561956	c 35	N77-17426	*
US-PATENT-APPL-SN-528031	c 10	N69-39888	*	US-PATENT-APPL-SN-54552	c 27	N70-34783	*	US-PATENT-APPL-SN-562443	c 09	N69-39734	*
US-PATENT-APPL-SN-528593	c 27	N71-21819	*	US-PATENT-APPL-SN-54552	c 20	N77-17143	*	US-PATENT-APPL-SN-562444	c 14	N71-22995	*
US-PATENT-APPL-SN-528594	c 15	N69-27483	*	US-PATENT-APPL-SN-54552	c 03	N69-21539	*	US-PATENT-APPL-SN-562445	c 14	N71-23787	*
US-PATENT-APPL-SN-528594	c 33	N71-29152	*	US-PATENT-APPL-SN-545535	c 03	N69-21539	*	US-PATENT-APPL-SN-562499	c 32	N77-31350	*
US-PATENT-APPL-SN-529609	c 09	N69-39986	*	US-PATENT-APPL-SN-545793	c 20	N80-14188	*	US-PATENT-APPL-SN-562558	c 31	N79-21227	*
US-PATENT-APPL-SN-529803	c 33	N83-35228	*	US-PATENT-APPL-SN-545805	c 15	N71-21744	*	US-PATENT-APPL-SN-562933	c 10	N71-24799	*
US-PATENT-APPL-SN-529884	c 54	N78-18761	*	US-PATENT-APPL-SN-546142	c 09	N69-24329	*	US-PATENT-APPL-SN-562934	c 09	N69-21468	*
US-PATENT-APPL-SN-530185	c 33	N83-35229	*	US-PATENT-APPL-SN-546148	c 11	N71-22875	*	US-PATENT-APPL-SN-562992	c 27	N78-32261	*
US-PATENT-APPL-SN-530339	c 31	N83-35178	*	US-PATENT-APPL-SN-546149	c 16	N71-24170	*	US-PATENT-APPL-SN-563049	c 17	N76-29347	*
US-PATENT-APPL-SN-530958	c 09	N71-22985	*	US-PATENT-APPL-SN-547072	c 15	N71-24043	*	US-PATENT-APPL-SN-563050	c 37	N78-31524	*
US-PATENT-APPL-SN-531565	c 36	N76-24553	*	US-PATENT-APPL-SN-547072	c 35	N78-32397	*	US-PATENT-APPL-SN-563053	c 35	N78-18401	*
US-PATENT-APPL-SN-53156	c 10	N71-28860	*	US-PATENT-APPL-SN-547171	c 44	N84-12635	*	US-PATENT-APPL-SN-563054	c 15	N71-18613	*
US-PATENT-APPL-SN-531572	c 86	N76-19888	*	US-PATENT-APPL-SN-547175	c 76	N84-12968	*	US-PATENT-APPL-SN-563646	c 05	N71-23096	*
US-PATENT-APPL-SN-531575	c 32	N76-31372	*	US-PATENT-APPL-SN-547176	c 35	N84-29191	*	US-PATENT-APPL-SN-563648	c 15	N71-17803	*
US-PATENT-APPL-SN-531642	c 25	N71-21693	*	US-PATENT-APPL-SN-547677	c 30	N71-20448	*	US-PATENT-APPL-SN-563650	c 25	N69-21929	*
US-PATENT-APPL-SN-531647	c 04	N76-20114	*	US-PATENT-APPL-SN-548468	c 17	N76-27567	*	US-PATENT-APPL-SN-563651	c 28	N71-23293	*
US-PATENT-APPL-SN-531647	c 04	N77-19056	*	US-PATENT-APPL-SN-548559	c 44	N76-29700	*	US-PATENT-APPL-SN-563890	c 35	N84-22935	*
US-PATENT-APPL-SN-532006	c 23	N71-24857	*	US-PATENT-APPL-SN-548559	c 27	N84-11297	*	US-PATENT-APPL-SN-563892	c 37	N77-31497	*
US-PATENT-APPL-SN-532342	c 05	N83-34934	*	US-PATENT-APPL-SN-548582	c 27	N84-20700	*	US-PATENT-APPL-SN-564822	c 09	N71-23316	*
US-PATENT-APPL-SN-532784	c 27	N75-29263	*	US-PATENT-APPL-SN-548583	c 27	N84-20700	*	US-PATENT-APPL-SN-564819	c 09	N71-23316	*
US-PATENT-APPL-SN-532784	c 27	N78-17205	*	US-PATENT-APPL-SN-548584	c 24	N84-34571	*	US-PATENT-APPL-SN-565162	c 35	N78-14348	*
US-PATENT-APPL-SN-533555	c 36	N76-18428	*	US-PATENT-APPL-SN-548808	c 14	N71-23227	*	US-PATENT-APPL-SN-565289	c 38	N77-17495	*
US-PATENT-APPL-SN-533556	c 38	N76-29575	*	US-PATENT-APPL-SN-549418	c 36	N78-31512	*	US-PATENT-APPL-SN-565290	c 17	N78-22245	*
US-PATENT-APPL-SN-533608	c 32	N76-21366	*	US-PATENT-APPL-SN-549860	c 03	N71-19438	*	US-PATENT-APPL-SN-565481	c 09	N84-18221	*
US-PATENT-APPL-SN-533650	c 35	N75-27329	*	US-PATENT-APPL-SN-550088	c 07	N71-24612	*	US-PATENT-APPL-SN-565482	c 23	N84-16259	*
US-PATENT-APPL-SN-533659	c 14	N73-30390	*	US-PATENT-APPL-SN-550681	c 02	N84-12092	*	US-PATENT-APPL-SN-566392	c 14	N71-23175	*
US-PATENT-APPL-SN-533734	c 33	N77-10428	*	US-PATENT-APPL-SN-551182	c 03	N71-23187	*	US-PATENT-APPL-SN-566397	c 05	N71-23161	*
US-PATENT-APPL-SN-534265	c 32	N76-21365	*	US-PATENT-APPL-SN-551184	c 37	N76-22541	*	US-PATENT-APPL-SN-566493	c 44	N78-29701	*
US-PATENT-APPL-SN-534266	c 35	N76-24523	*	US-PATENT-APPL-SN-551536	c 04	N84-12151	*	US-PATENT-APPL-SN-566494	c 32	N77-30309	*
US-PATENT-APPL-SN-534295	c 15	N71-21076	*	US-PATENT-APPL-SN-551694	c 31	N71-18611	*	US-PATENT-APPL-SN-566495	c 33	N77-17351	*
US-PATENT-APPL-SN-534564	c 10	N71-22961	*	US-PATENT-APPL-SN-551815	c 02	N71-11038	*	US-PATENT-APPL-SN-566717	c 14	N71-24233	*
US-PATENT-APPL-SN-534901	c 14	N70-36807	*	US-PATENT-APPL-SN-551846	c 03	N71-20492	*	US-PATENT-APPL-SN-567686	c 15	N71-22994	*
US-PATENT-APPL-SN-534968	c 15	N71-24042	*	US-PATENT-APPL-SN-551933	c 33	N71-14032	*	US-PATENT-APPL-SN-567806	c 06	N71-22975	*
US-PATENT-APPL-SN-534975	c 14	N71-24232	*	US-PATENT-APPL-SN-551961	c 15	N70-33376	*	US-PATENT-APPL-SN-56791	c 10	N72-16172	*
US-PATENT-APPL-SN-535169	c 54	N78-17678	*	US-PATENT-APPL-SN-552108	c 07	N79-14096	*	US-PATENT-APPL-SN-568067	c 31	N71-22968	*
US-PATENT-APPL-SN-535304	c 09	N71-28810	*	US-PATENT-APPL-SN-552344	c 09	N69-27463	*	US-PATENT-APPL-SN-568071	c 14	N69-27461	*
US-PATENT-APPL-SN-535410	c 37	N76-15457	*	US-PATENT-APPL-SN-552454	c 35	N76-24525	*	US-PATENT-APPL-SN-568160	c 10	N71-18724	*
US-PATENT-APPL-SN-536210	c 17	N71-24830	*	US-PATENT-APPL-SN-553339	c 27	N84-16341	*	US-PATENT-APPL-SN-568346	c 04	N69-27487	*
US-PATENT-APPL-SN-536216	c 10	N71-23315	*	US-PATENT-APPL-SN-553339	c 10	N73-16206	*	US-PATENT-APPL-SN-568352	c 09	N71-20842	*
US-PATENT-APPL-SN-536217	c 10	N71-23544	*	US-PATENT-APPL-SN-553687	c 44	N76-29704	*	US-PATENT-APPL-SN-568354	c 14	N71-22752	*
US-PATENT-APPL-SN-536535	c 33	N76-14371	*	US-PATENT-APPL-SN-553891	c 23	N71-16341	*	US-PATENT-APPL-SN-568355	c 32	N71-23971	*
US-PATENT-APPL-SN-536761	c 33	N78-19338	*	US-PATENT-APPL-SN-554277	c 07	N71-26579	*	US-PATENT-APPL-SN-568356	c 14	N71-15599	*
US-PATENT-APPL-SN-536762	c 37	N76-22540	*	US-PATENT-APPL-SN-554897	c 15	N71-22982	*	US-PATENT-APPL-SN-568362	c 03	N69-39983	*
US-PATENT-APPL-SN-536765	c 33	N76-31409	*	US-PATENT-APPL-SN-554899	c 15	N70-33382	*	US-PATENT-APPL-SN-568364	c 10	N71-26418	*
US-PATENT-APPL-SN-536786	c 44	N77-32581	*	US-PATENT-APPL-SN-554959	c 06	N71-20717	*	US-PATENT-APPL-SN-568541	c 24	N77-2822	



US-PATENT-APPL-SN-570097	c 15	N69-23185 *	US-PATENT-APPL-SN-584071	c 26	N71-16037 *	US-PATENT-APPL-SN-600682	c 14	N71-20461 *
US-PATENT-APPL-SN-570678	c 17	N71-25903 *	US-PATENT-APPL-SN-584072	c 15	N69-39786 *	US-PATENT-APPL-SN-601130	c 31	N84-32569 *
US-PATENT-APPL-SN-571458	c 44	N77-10635 *	US-PATENT-APPL-SN-584094	c 26	N77-20201 *	US-PATENT-APPL-SN-601228	c 15	N71-17652 *
US-PATENT-APPL-SN-571459	c 54	N78-14784 *	US-PATENT-APPL-SN-584914	c 54	N78-17679 *	US-PATENT-APPL-SN-601229	c 14	N71-26474 *
US-PATENT-APPL-SN-571613	c 89	N84-17084 *	US-PATENT-APPL-SN-585217	c 54	N78-17677 *	US-PATENT-APPL-SN-602049	c 35	N84-25015 *
US-PATENT-APPL-SN-571614	c 35	N84-18531 *	US-PATENT-APPL-SN-585420	c 35	N76-31489 *	US-PATENT-APPL-SN-602050	c 07	N84-22563 *
US-PATENT-APPL-SN-571615	c 74	N84-18986 *	US-PATENT-APPL-SN-585988	c 33	N75-29318 *	US-PATENT-APPL-SN-602105	c 72	N84-25431 *
US-PATENT-APPL-SN-571616	c 14	N84-22596 *	US-PATENT-APPL-SN-586324	c 05	N71-26293 *	US-PATENT-APPL-SN-602617	c 37	N77-23483 *
US-PATENT-APPL-SN-571821	c 24	N84-18266 *	US-PATENT-APPL-SN-586325	c 31	N71-24315 *	US-PATENT-APPL-SN-602618	c 44	N76-31667 *
US-PATENT-APPL-SN-57252	c 20	N76-22296 *	US-PATENT-APPL-SN-586329	c 05	N71-24623 *	US-PATENT-APPL-SN-60276	c 22	N73-32528 *
US-PATENT-APPL-SN-57253	c 18	N72-25414 *	US-PATENT-APPL-SN-586330	c 05	N71-12344 *	US-PATENT-APPL-SN-602828	c 09	N71-13531 *
US-PATENT-APPL-SN-572990	c 37	N78-16369 *	US-PATENT-APPL-SN-587749	c 60	N84-25306 *	US-PATENT-APPL-SN-603373	c 28	N84-29017 *
US-PATENT-APPL-SN-572991	c 51	N77-22794 *	US-PATENT-APPL-SN-588038	c 18	N84-22612 *	US-PATENT-APPL-SN-603374	c 37	N84-22959 *
US-PATENT-APPL-SN-573029	c 07	N79-14097 *	US-PATENT-APPL-SN-588039	c 18	N84-32424 *	US-PATENT-APPL-SN-603396	c 14	N69-23191 *
US-PATENT-APPL-SN-573162	c 37	N84-20859 *	US-PATENT-APPL-SN-588164	c 31	N84-24830 *	US-PATENT-APPL-SN-603397	c 26	N71-23292 *
US-PATENT-APPL-SN-573432	c 14	N71-23790 *	US-PATENT-APPL-SN-588635	c 21	N71-15642 *	US-PATENT-APPL-SN-604337	c 27	N84-24806 *
US-PATENT-APPL-SN-573939	c 03	N72-20034 *	US-PATENT-APPL-SN-588661	c 31	N71-24813 *	US-PATENT-APPL-SN-604374	c 44	N76-29699 *
US-PATENT-APPL-SN-574208	c 37	N76-29590 *	US-PATENT-APPL-SN-588671	c 03	N71-23354 *	US-PATENT-APPL-SN-605090	c 15	N71-19485 *
US-PATENT-APPL-SN-574218	c 52	N76-28895 *	US-PATENT-APPL-SN-588721	c 27	N78-33228 *	US-PATENT-APPL-SN-605091	c 15	N71-26346 *
US-PATENT-APPL-SN-574219	c 35	N76-31490 *	US-PATENT-APPL-SN-589119	c 32	N77-32342 *	US-PATENT-APPL-SN-605092	c 05	N71-23317 *
US-PATENT-APPL-SN-574280	c 15	N69-21480 *	US-PATENT-APPL-SN-589172	c 27	N79-14214 *	US-PATENT-APPL-SN-605093	c 17	N71-24911 *
US-PATENT-APPL-SN-574282	c 15	N69-23190 *	US-PATENT-APPL-SN-589173	c 32	N77-12240 *	US-PATENT-APPL-SN-605094	c 09	N71-24808 *
US-PATENT-APPL-SN-574282	c 15	N71-23025 *	US-PATENT-APPL-SN-589233	c 33	N77-14335 *	US-PATENT-APPL-SN-605095	c 10	N71-19417 *
US-PATENT-APPL-SN-574283	c 14	N69-24257 *	US-PATENT-APPL-SN-590141	c 03	N69-24267 *	US-PATENT-APPL-SN-605096	c 15	N71-24834 *
US-PATENT-APPL-SN-574284	c 08	N71-19763 *	US-PATENT-APPL-SN-590144	c 15	N71-15606 *	US-PATENT-APPL-SN-605097	c 14	N69-21923 *
US-PATENT-APPL-SN-574290	c 14	N71-20439 *	US-PATENT-APPL-SN-590145	c 07	N69-39980 *	US-PATENT-APPL-SN-605098	c 09	N71-26092 *
US-PATENT-APPL-SN-575291	c 33	N71-29151 *	US-PATENT-APPL-SN-590146	c 09	N69-21926 *	US-PATENT-APPL-SN-605099	c 09	N71-23548 *
US-PATENT-APPL-SN-575475	c 05	N69-23192 *	US-PATENT-APPL-SN-590147	c 15	N71-21489 *	US-PATENT-APPL-SN-605100	c 15	N71-21536 *
US-PATENT-APPL-SN-575930	c 06	N71-23230 *	US-PATENT-APPL-SN-590158	c 05	N71-24147 *	US-PATENT-APPL-SN-605102	c 09	N69-39897 *
US-PATENT-APPL-SN-576182	c 33	N71-24276 *	US-PATENT-APPL-SN-590159	c 09	N69-24324 *	US-PATENT-APPL-SN-605103	c 28	N70-37980 *
US-PATENT-APPL-SN-576183	c 09	N71-23525 *	US-PATENT-APPL-SN-590182	c 37	N76-29586 *	US-PATENT-APPL-SN-605336	c 02	N70-38009 *
US-PATENT-APPL-SN-576185	c 14	N71-21079 *	US-PATENT-APPL-SN-590183	c 74	N79-13855 *	US-PATENT-APPL-SN-605518	c 15	N71-23023 *
US-PATENT-APPL-SN-576308	c 02	N84-20495 *	US-PATENT-APPL-SN-590921	c 71	N84-21274 *	US-PATENT-APPL-SN-605964	c 06	N73-30103 *
US-PATENT-APPL-SN-576488	c 44	N76-28835 *	US-PATENT-APPL-SN-590923	c 35	N84-20804 *	US-PATENT-APPL-SN-605994	c 06	N73-30101 *
US-PATENT-APPL-SN-576521	c 09	N71-20864 *	US-PATENT-APPL-SN-590925	c 26	N84-20670 *	US-PATENT-APPL-SN-606027	c 06	N73-30099 *
US-PATENT-APPL-SN-576774	c 60	N77-18760 *	US-PATENT-APPL-SN-590975	c 44	N78-31525 *	US-PATENT-APPL-SN-606036	c 06	N73-30100 *
US-PATENT-APPL-SN-576792	c 14	N71-26136 *	US-PATENT-APPL-SN-591000	c 15	N71-24044 *	US-PATENT-APPL-SN-606426	c 35	N84-25016 *
US-PATENT-APPL-SN-576797	c 09	N69-24318 *	US-PATENT-APPL-SN-591004	c 07	N71-11266 *	US-PATENT-APPL-SN-606430	c 27	N84-24807 *
US-PATENT-APPL-SN-577114	c 15	N69-24320 *	US-PATENT-APPL-SN-591007	c 16	N69-27491 *	US-PATENT-APPL-SN-606431	c 37	N84-25063 *
US-PATENT-APPL-SN-577115	c 15	N71-17647 *	US-PATENT-APPL-SN-591014	c 28	N71-24738 *	US-PATENT-APPL-SN-606432	c 74	N84-25450 *
US-PATENT-APPL-SN-577545	c 08	N71-18883 *	US-PATENT-APPL-SN-591089	c 24	N84-22696 *	US-PATENT-APPL-SN-606462	c 08	N71-24891 *
US-PATENT-APPL-SN-577548	c 31	N71-23008 *	US-PATENT-APPL-SN-591568	c 74	N76-31998 *	US-PATENT-APPL-SN-606463	c 14	N71-24864 *
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US-PATENT-APPL-SN-839934	c 07	N72-20140	#	US-PATENT-APPL-SN-85585	c 21	N70-35427	#	US-PATENT-APPL-SN-874733	c 15	N71-26635	#
US-PATENT-APPL-SN-839935	c 15	N71-24895	#	US-PATENT-APPL-SN-856253	c 24	N74-18769	#	US-PATENT-APPL-SN-874958	c 31	N71-15566	#
US-PATENT-APPL-SN-839941	c 07	N71-26181	#	US-PATENT-APPL-SN-856258	c 05	N71-17599	#	US-PATENT-APPL-SN-87550	c 06	N72-25146	#
US-PATENT-APPL-SN-839963	c 27	N79-33316	#	US-PATENT-APPL-SN-856279	c 07	N72-21118	#	US-PATENT-APPL-SN-87551	c 33	N73-16918	#
US-PATENT-APPL-SN-839963	c 27	N81-14078	#	US-PATENT-APPL-SN-856282	c 08	N72-22166	#	US-PATENT-APPL-SN-875849	c 07	N71-33696	#
US-PATENT-APPL-SN-839994	c 28	N71-28915	#	US-PATENT-APPL-SN-856327	c 05	N72-18015	#	US-PATENT-APPL-SN-87597	c 33	N74-22884	#
US-PATENT-APPL-SN-84002	c 08	N73-20217	#	US-PATENT-APPL-SN-856328	c 14	N72-22441	#	US-PATENT-APPL-SN-876299	c 44	N80-18552	#
US-PATENT-APPL-SN-840176	c 28	N71-27095	#	US-PATENT-APPL-SN-856415	c 09	N71-26182	#	US-PATENT-APPL-SN-876431	c 33	N79-24254	#
US-PATENT-APPL-SN-840308	c 07	N71-33613	#	US-PATENT-APPL-SN-856460	c 25	N79-24073	#	US-PATENT-APPL-SN-876432	c 36	N80-18372	#
US-PATENT-APPL-SN-840359	c 23	N71-29125	#	US-PATENT-APPL-SN-856461	c 34	N79-12359	#	US-PATENT-APPL-SN-876438	c 52	N79-26772	#
US-PATENT-APPL-SN-840870	c 15	N71-26189	#	US-PATENT-APPL-SN-856462	c 34	N80-24573	#	US-PATENT-APPL-SN-876440	c 51	N80-16714	#
US-PATENT-APPL-SN-840983	c 05	N70-33285	#	US-PATENT-APPL-SN-856462	c 44	N81-24519	#	US-PATENT-APPL-SN-876441	c 74	N79-20856	#
US-PATENT-APPL-SN-841278	c 33	N77-21316	#	US-PATENT-APPL-SN-856464	c 36	N79-14382	#	US-PATENT-APPL-SN-876588	c 15	N72-25452	#
US-PATENT-APPL-SN-841845	c 14	N73-32317	#	US-PATENT-APPL-SN-856465	c 44	N80-14473	#	US-PATENT-APPL-SN-876588	c 25	N74-30502	#
US-PATENT-APPL-SN-84212	c 27	N74-17283	#	US-PATENT-APPL-SN-856486	c 72	N80-14877	#	US-PATENT-APPL-SN-877445	c 23	N82-29356	#
US-PATENT-APPL-SN-842170	c 11	N70-33278	#	US-PATENT-APPL-SN-857241	c 46	N74-23069	#	US-PATENT-APPL-SN-877717	c 14	N72-27410	#
US-PATENT-APPL-SN-842171	c 11	N70-33329	#	US-PATENT-APPL-SN-857445	c 05	N71-24728	#	US-PATENT-APPL-SN-877717	c 14	N73-13417	#
US-PATENT-APPL-SN-84289	c 15	N73-14469	#	US-PATENT-APPL-SN-857967	c 15	N72-20443	#	US-PATENT-APPL-SN-877990	c 14	N72-28437	#
US-PATENT-APPL-SN-84290	c 05	N73-20137	#	US-PATENT-APPL-SN-858596	c 35	N78-18395	#	US-PATENT-APPL-SN-878253	c 25	N81-33246	#
US-PATENT-APPL-SN-843022	c 11	N70-33287	#	US-PATENT-APPL-SN-858695	c 11	N72-22247	#	US-PATENT-APPL-SN-878539	c 35	N80-20560	#
US-PATENT-APPL-SN-843032	c 28	N70-41818	#	US-PATENT-APPL-SN-858762	c 08	N79-23097	#	US-PATENT-APPL-SN-878540	c 24	N82-26384	#
US-PATENT-APPL-SN-843090	c 27	N79-22300	#	US-PATENT-APPL-SN-858764	c 33	N79-10338	#	US-PATENT-APPL-SN-878541	c 33	N81-14220	#
US-PATENT-APPL-SN-843251	c 03	N72-11062	#	US-PATENT-APPL-SN-858765	c 33	N79-11313	#	US-PATENT-APPL-SN-878542	c 33	N79-28416	#
US-PATENT-APPL-SN-843308	c 32	N79-14268	#	US-PATENT-APPL-SN-858766	c 27	N79-14213	#	US-PATENT-APPL-SN-878730	c 08	N72-22164	#
US-PATENT-APPL-SN-844225	c 05	N72-25120	#	US-PATENT-APPL-SN-858767	c 32	N83-19968	#	US-PATENT-APPL-SN-878731	c 15	N71-26182	#
US-PATENT-APPL-SN-844243	c 37	N75-29426	#	US-PATENT-APPL-SN-858936	c 07	N80-18039	#	US-PATENT-APPL-SN-880246	c 28	N72-22770	#
US-PATENT-APPL-SN-844315	c 35	N77-21392	#	US-PATENT-APPL-SN-858950	c 35	N78-17359	#	US-PATENT-APPL-SN-880247	c 09	N70-20737	#
US-PATENT-APPL-SN-844344	c 24	N79-14156	#	US-PATENT-APPL-SN-86018	c 23	N71-30292	#	US-PATENT-APPL-SN-880248	c 07	N72-11150	#
US-PATENT-APPL-SN-844346	c 44	N79-11472	#	US-PATENT-APPL-SN-860404	c 37	N81-15384	#	US-PATENT-APPL-SN-880249	c 15	N72-22482	#
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US-PATENT-APPL-SN-845365	c 09	N71-13518	#	US-PATENT-APPL-SN-860406	c 24	N79-17918	#	US-PATENT-APPL-SN-880271	c 15	N72-25448	#
US-PATENT-APPL-SN-845584	c 27	N73-22710	#	US-PATENT-APPL-SN-860482	c 09	N72-20199	#	US-PATENT-APPL-SN-880272	c 14	N71-27058	#
US-PATENT-APPL-SN-845807	c 15	N72-11391	#	US-PATENT-APPL-SN-860493	c 14	N72-16283	#	US-PATENT-APPL-SN-880398	c 15	N73-12487	#
US-PATENT-APPL-SN-845971	c 11	N71-28629	#	US-PATENT-APPL-SN-860635	c 28	N72-17843	#	US-PATENT-APPL-SN-880726	c 44	N80-21828	#
US-PATENT-APPL-SN-845972	c 09	N70-11148	#	US-PATENT-APPL-SN-860750	c 08	N72-22165	#	US-PATENT-APPL-SN-880727	c 35	N79-28527	#
US-PATENT-APPL-SN-845973	c 11	N71-24985	#	US-PATENT-APPL-SN-860751	c 08	N72-18184	#	US-PATENT-APPL-SN-880728	c 37	N80-10494	#
US-PATENT-APPL-SN-845974	c 33	N71-25353	#	US-PATENT-APPL-SN-860781	c 18	N72-22567	#	US-PATENT-APPL-SN-880729	c 35	N80-20563	#
US-PATENT-APPL-SN-845990	c 14	N71-27005	#	US-PATENT-APPL-SN-861152	c 14	N70-33322	#	US-PATENT-APPL-SN-880831	c 11	N72-20244	#
US-PATENT-APPL-SN-845991	c 14	N71-29134	#	US-PATENT-APPL-SN-861390	c 28	N79-28342	#	US-PATENT-APPL-SN-880838	c 37	N79-28549	#
US-PATENT-APPL-SN-847023	c 31	N70-37938	#	US-PATENT-APPL-SN-861391	c 44	N79-12541	#	US-PATENT-APPL-SN-880885	c 07	N72-12080	#
US-PATENT-APPL-SN-847027	c 03	N70-33343	#	US-PATENT-APPL-SN-861392	c 71	N79-23753	#	US-PATENT-APPL-SN-881039	c 09	N71-24842	#
US-PATENT-APPL-SN-847276	c 37	N81-32510	#	US-PATENT-APPL-SN-861396	c 35	N79-14349	#	US-PATENT-APPL-SN-881041	c 09	N72-22204	#
US-PATENT-APPL-SN-847277	c 31	N79-28370	#	US-PATENT-APPL-SN-861649	c 14	N72-17327	#	US-PATENT-APPL-SN-882122	c 14	N72-22438	#
US-PATENT-APPL-SN-847278	c 34	N79-20335	#	US-PATENT-APPL-SN-862678	c 09	N82-29330	#	US-PATENT-APPL-SN-882577	c 07	N71-27056	#
US-PATENT-APPL-SN-847596	c 15	N70-10867	#	US-PATENT-APPL-SN-862680	c 24	N79-31347	#	US-PATENT-APPL-SN-883090	c 44	N80-29834	#
US-PATENT-APPL-SN-847815	c 52	N75-15270	#	US-PATENT-APPL-SN-862921	c 31	N71-29050	#	US-PATENT-APPL-SN-883094	c 54	N79-24651	#
US-PATENT-APPL-SN-848262	c 15	N72-21462	#	US-PATENT-APPL-SN-863024	c 46	N80-14803	#	US-PATENT-APPL-SN-883523	c 09	N72-33204	#
US-PATENT-APPL-SN-848325	c 08	N70-11251	#	US-PATENT-APPL-SN-863276	c 16	N72-12440	#	US-PATENT-APPL-SN-883524	c 09	N72-21246	#
US-PATENT-APPL-SN-848351	c 06	N70-11252	#	US-PATENT-APPL-SN-863280	c 24	N72-33681	#	US-PATENT-APPL-SN-883961	c 25	N80-16116	#
US-PATENT-APPL-SN-848403	c 33	N74-20859	#	US-PATENT-APPL-SN-8636	c 15	N72-25451	#	US-PATENT-APPL-SN-88435	c 35	N74-15090	#
US-PATENT-APPL-SN-848403	c 36	N75-27364	#	US-PATENT-APPL-SN-863770	c 44	N79-18444	#	US-PATENT-APPL-SN-885049	c 33	N79-23345	#
US-PATENT-APPL-SN-848418	c 43	N79-26439	#	US-PATENT-APPL-SN-863773	c 44	N79-26475	#	US-PATENT-APPL-SN-885065	c 35	N79-18296	#
US-PATENT-APPL-SN-848419	c 43	N80-23711	#	US-PATENT-APPL-SN-863913	c 14	N71-28991	#	US-PATENT-APPL-SN-885066	c 33	N80-26599	#
US-PATENT-APPL-SN-848420	c 43	N79-25443	#	US-PATENT-APPL-SN-863914	c 09	N72-31235	#	US-PATENT-APPL-SN-885067	c 33	N79-28415	#
US-PATENT-APPL-SN-848421	c 43	N80-14423	#	US-PATENT-APPL-SN-863963	c 10	N71-26085	#	US-PATENT-APPL-SN-885521	c 03	N72-28025	#
US-PATENT-APPL-SN-848428	c 25	N82-21268	#	US-PATENT-APPL-SN-863967	c 11	N71-27038	#	US-PATENT-APPL-SN-885571	c 09	N71-28886	#
US-PATENT-APPL-SN-848481	c 17	N70-33283	#	US-PATENT-APPL-SN-864020	c 15	N72-17454	#	US-PATENT-APPL-SN-885594	c 15	N71-29133	#
US-PATENT-APPL-SN-848776	c 07	N72-22127	#	US-PATENT-APPL-SN-864039	c 15	N72-22483	#	US-PATENT-APPL-SN-887685	c 10	N72-20223	#
US-PATENT-APPL-SN-848783	c 43	N79-31706	#	US-PATENT-APPL-SN-864097	c 07	N71-33606	#	US-PATENT-APPL-SN-887698	c 09	N72-17153	#
US-PATENT-APPL-SN-848784	c 44	N79-24431	#	US-PATENT-APPL-SN-86417	c 07	N72-25171	#	US-PATENT-APPL-SN-887699	c 15	N72-17452	#
US-PATENT-APPL-SN-848805	c 06	N72-17095	#	US-PATENT-APPL-SN-8650	c 03	N72-25021	#	US-PATENT-APPL-SN-887700	c 07	N71-28980	#
US-PATENT-APPL-SN-848810	c 07	N72-11148	#	US-PATENT-APPL-SN-865106	c 09	N72-22202	#	US-PATENT-APPL-SN-887701	c 08	N71-29034	#
US-PATENT-APPL-SN-848811	c 10	N71-26142	#	US-PATENT-APPL-SN-865109	c 14	N71-28933	#	US-PATENT-APPL-SN-888362	c 33	N80-14330	#
US-PATENT-APPL-SN-849106	c 09	N72-22197	#	US-PATENT-APPL-SN-865274	c 09	N72-17155	#	US-PATENT-APPL-SN-888432	c 74	N81-17886	#
US-PATENT-APPL-SN-849274	c 28	N79-14228	#	US-PATENT-APPL-SN-865298	c 15	N72-11388	#	US-PATENT-APPL-SN-888434	c 51	N83-27569	#
US-PATENT-APPL-SN-84961	c 02	N70-34178	#	US-PATENT-APPL-SN-865329	c 15	N71-29132	#	US-PATENT-APPL-SN-888937	c 08	N72-25207	#
US-PATENT-APPL-S											



US-PATENT-APPL-SN-889555	c 09	N72-17154 *	US-PATENT-APPL-SN-931218	c 20	N80-18097 *	US-PATENT-APPL-SN-98773	c 15	N72-22486 *
US-PATENT-APPL-SN-889556	c 14	N72-18411 *	US-PATENT-APPL-SN-933186	c 27	N80-32515 *	US-PATENT-APPL-SN-98774	c 14	N73-19419 *
US-PATENT-APPL-SN-889557	c 11	N72-17183 *	US-PATENT-APPL-SN-93329	c 09	N73-26195 *	US-PATENT-APPL-SN-98798	c 09	N73-13209 *
US-PATENT-APPL-SN-889558	c 15	N72-22491 *	US-PATENT-APPL-SN-934576	c 35	N80-18358 *	US-PATENT-APPL-SN-99174	c 14	N72-33377 *
US-PATENT-APPL-SN-889583	c 15	N72-21464 *	US-PATENT-APPL-SN-935827	c 37	N80-18393 *	US-PATENT-APPL-SN-99175	c 09	N72-25258 *
US-PATENT-APPL-SN-889584	c 08	N72-31226 *	US-PATENT-APPL-SN-93714	c 44	N82-28780 *	US-PATENT-APPL-SN-99198	c 31	N73-32749 *
US-PATENT-APPL-SN-889670	c 39	N79-22537 *	US-PATENT-APPL-SN-938293	c 32	N80-32605 *	US-PATENT-APPL-SN-99201	c 15	N73-25512 *
US-PATENT-APPL-SN-889671	c 24	N81-14000 *	US-PATENT-APPL-SN-938297	c 25	N81-14015 *	US-PATENT-APPL-SN-99201	c 37	N74-20063 *
US-PATENT-APPL-SN-889671	c 24	N81-33235 *	US-PATENT-APPL-SN-938298	c 33	N81-17348 *	US-PATENT-APPL-SN-99524	c 06	N72-27144 *
US-PATENT-APPL-SN-889682	c 15	N72-25447 *	US-PATENT-APPL-SN-938299	c 33	N81-19389 *	US-PATENT-APPL-SN-99901	c 37	N74-10474 *
US-PATENT-APPL-SN-891243	c 44	N78-25482 *	US-PATENT-APPL-SN-938300	c 37	N80-23654 *	US-PATENT-APPL-SN-99903	c 11	N73-12265 *
US-PATENT-APPL-SN-891244	c 05	N79-24976 *	US-PATENT-APPL-SN-938579	c 76	N80-32244 *			
US-PATENT-APPL-SN-891356	c 35	N80-18359 *	US-PATENT-APPL-SN-938581	c 04	N80-32359 *	US-PATENT-CASE-179-148-R	c 05	N83-27975 *
US-PATENT-APPL-SN-891358	c 44	N80-14474 *	US-PATENT-APPL-SN-938582	c 37	N80-23653 *	US-PATENT-CASE-179-179	c 05	N83-27975 *
US-PATENT-APPL-SN-891370	c 20	N79-20179 *	US-PATENT-APPL-SN-94049	c 14	N73-20476 *	US-PATENT-CASE-244-121	c 05	N83-19737 *
US-PATENT-APPL-SN-891372	c 37	N79-22474 *	US-PATENT-APPL-SN-940688	c 24	N79-24062 *	US-PATENT-CASE-244-129.4	c 05	N83-19737 *
US-PATENT-APPL-SN-891373	c 31	N80-18231 *	US-PATENT-APPL-SN-940689	c 35	N80-28686 *	US-PATENT-CASE-292-254	c 05	N83-19737 *
US-PATENT-APPL-SN-891872	c 25	N82-24312 *	US-PATENT-APPL-SN-940970	c 72	N80-27163 *	US-PATENT-CASE-356-129	c 36	N83-29680 *
US-PATENT-APPL-SN-89209	c 09	N72-25248 *	US-PATENT-APPL-SN-941711	c 24	N80-26388 *	US-PATENT-CASE-367-906	c 05	N83-27975 *
US-PATENT-APPL-SN-89210	c 07	N73-26119 *	US-PATENT-APPL-SN-94259	c 27	N70-35534 *	US-PATENT-CASE-368-10	c 35	N83-29651 *
US-PATENT-APPL-SN-89211	c 14	N73-12446 *	US-PATENT-APPL-SN-943086	c 37	N80-32717 *	US-PATENT-CASE-368-118	c 35	N83-29651 *
US-PATENT-APPL-SN-89212	c 08	N72-25208 *	US-PATENT-APPL-SN-943087	c 15	N78-32168 *	US-PATENT-CASE-368-119	c 35	N83-29651 *
US-PATENT-APPL-SN-893382	c 34	N79-24285 *	US-PATENT-APPL-SN-943088	c 18	N80-14183 *	US-PATENT-CASE-368-120	c 35	N83-29651 *
US-PATENT-APPL-SN-893383	c 31	N81-27323 *	US-PATENT-APPL-SN-943089	c 74	N80-21140 *	US-PATENT-CASE-368-6	c 35	N83-29651 *
US-PATENT-APPL-SN-893657	c 51	N80-27067 *	US-PATENT-APPL-SN-94347	c 05	N72-25122 *	US-PATENT-CASE-368-9	c 35	N83-29651 *
US-PATENT-APPL-SN-893657	c 24	N81-17170 *	US-PATENT-APPL-SN-94369	c 07	N71-28965 *			
US-PATENT-APPL-SN-893857	c 24	N81-26179 *	US-PATENT-APPL-SN-94374	c 14	N72-25411 *	US-PATENT-CLAS-165-27	c 34	N83-34221 *
US-PATENT-APPL-SN-893865	c 37	N81-24443 *	US-PATENT-APPL-SN-945040	c 37	N82-24492 *	US-PATENT-CLAS-361-90	c 33	N83-34190 *
US-PATENT-APPL-SN-893903	c 60	N81-15706 *	US-PATENT-APPL-SN-945041	c 43	N80-18498 *			
US-PATENT-APPL-SN-894213	c 37	N80-23655 *	US-PATENT-APPL-SN-945043	c 33	N81-33403 *	US-PATENT-CLASS-D12-76	c 05	N75-25914 *
US-PATENT-APPL-SN-897828	c 52	N81-29763 *	US-PATENT-APPL-SN-945044	c 54	N81-26718 *	US-PATENT-CLASS-D71-1	c 05	N74-10907 *
US-PATENT-APPL-SN-897829	c 44	N79-25481 *	US-PATENT-APPL-SN-945436	c 46	N80-24906 *			
US-PATENT-APPL-SN-897830	c 35	N80-21719 *	US-PATENT-APPL-SN-946990	c 28	N80-23471 *	US-PATENT-CLASS-100-299	c 15	N72-20446 *
US-PATENT-APPL-SN-897831	c 44	N80-20808 *	US-PATENT-APPL-SN-946991	c 31	N81-27324 *	US-PATENT-CLASS-100-8	c 33	N74-17928 *
US-PATENT-APPL-SN-897832	c 31	N78-24387 *	US-PATENT-APPL-SN-946992	c 45	N80-14579 *	US-PATENT-CLASS-101-395	c 35	N84-22930 *
US-PATENT-APPL-SN-897832	c 43	N81-26509 *	US-PATENT-APPL-SN-946994	c 44	N79-31753 *	US-PATENT-CLASS-101-407BP	c 37	N84-12491 *
US-PATENT-APPL-SN-897840	c 31	N81-14137 *	US-PATENT-APPL-SN-947000	c 28	N81-15119 *	US-PATENT-CLASS-102-101	c 28	N71-26779 *
US-PATENT-APPL-SN-899123	c 44	N79-14528 *	US-PATENT-APPL-SN-94952	c 14	N70-34158 *	US-PATENT-CLASS-102-103	c 20	N78-32179 *
US-PATENT-APPL-SN-899828	c 32	N80-18252 *	US-PATENT-APPL-SN-949886	c 33	N80-18285 *	US-PATENT-CLASS-102-105	c 33	N72-17947 *
US-PATENT-APPL-SN-900659	c 27	N81-17261 *	US-PATENT-APPL-SN-950876	c 37	N80-31790 *	US-PATENT-CLASS-102-105	c 33	N72-25911 *
US-PATENT-APPL-SN-900841	c 32	N82-31583 *	US-PATENT-APPL-SN-950877	c 52	N81-25660 *	US-PATENT-CLASS-102-105	c 33	N73-25952 *
US-PATENT-APPL-SN-900842	c 32	N78-24203 *	US-PATENT-APPL-SN-951422	c 51	N81-14605 *	US-PATENT-CLASS-102-105	c 27	N74-27037 *
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US-PATENT-CLASS-106-84	c 24	N79-14156 *	#	US-PATENT-CLASS-117-50	c 15	N71-15610 *	#	US-PATENT-CLASS-123-59E	c 37	N77-31497 *	#
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US-PATENT-CLASS-106-88	c 18	N71-16124 *	#	US-PATENT-CLASS-117-65.2	c 18	N72-25452 *	#	US-PATENT-CLASS-123-89A	c 37	N78-18457 *	#
US-PATENT-CLASS-109-138	c 09	N75-12968 *	#	US-PATENT-CLASS-117-66	c 15	N71-10772 *	#	US-PATENT-CLASS-124-11R	c 75	N76-17951 *	#
US-PATENT-CLASS-109-49.5	c 31	N81-19343 *	#	US-PATENT-CLASS-117-69	c 15	N73-32360 *	#	US-PATENT-CLASS-124-1	c 75	N76-17951 *	#
US-PATENT-CLASS-109-58.5	c 31	N81-19343 *	#	US-PATENT-CLASS-117-69	c 18	N70-36400 *	#	US-PATENT-CLASS-124-6	c 09	N77-19076 *	#
US-PATENT-CLASS-110-186	c 25	N84-18276 *	#	US-PATENT-CLASS-117-69	c 15	N71-16075 *	#	US-PATENT-CLASS-125-1	c 46	N74-23069 *	#
US-PATENT-CLASS-110-216	c 31	N81-15154 *	#	US-PATENT-CLASS-117-69	c 14	N71-20461 *	#	US-PATENT-CLASS-125-20	c 31	N83-27058 *	#
US-PATENT-CLASS-110-229	c 31	N81-15154 *	#	US-PATENT-CLASS-117-6	c 27	N81-15104 *	#	US-PATENT-CLASS-125-21	c 37	N80-29703 *	#
US-PATENT-CLASS-110-232	c 31	N81-15154 *	#	US-PATENT-CLASS-117-72	c 35	N75-25122 *	#	US-PATENT-CLASS-125-23R	c 76	N80-18951 *	#
US-PATENT-CLASS-110-234	c 25	N82-11144 *	#	US-PATENT-CLASS-117-8.5	c 24	N75-33181 *	#	US-PATENT-CLASS-125-23R	c 37	N82-32730 *	#
US-PATENT-CLASS-110-245	c 25	N82-11144 *	#	US-PATENT-CLASS-117-93.1GD	c 25	N75-12087 *	#	US-PATENT-CLASS-125-3	c 46	N74-23069 *	#
US-PATENT-CLASS-110-255	c 25	N82-11144 *	#	US-PATENT-CLASS-117-93.16D	c 15	N72-25447 *	#	US-PATENT-CLASS-126-263	c 44	N77-32581 *	#
US-PATENT-CLASS-110-262	c 25	N84-16276 *	#	US-PATENT-CLASS-117-93.3	c 15	N72-25452 *	#	US-PATENT-CLASS-126-263	c 44	N78-17460 *	#
US-PATENT-CLASS-110-263	c 25	N84-16276 *	#	US-PATENT-CLASS-117-93.3	c 37	N75-15992 *	#	US-PATENT-CLASS-126-263	c 44	N80-20808 *	#
US-PATENT-CLASS-110-265	c 25	N84-16276 *	#	US-PATENT-CLASS-117-95	c 24	N74-19769 *	#	US-PATENT-CLASS-126-270	c 09	N70-40234 *	#
US-PATENT-CLASS-110-266	c 25	N82-11144 *	#	US-PATENT-CLASS-117-95	c 36	N75-15029 *	#	US-PATENT-CLASS-126-270	c 03	N70-41580 *	#
US-PATENT-CLASS-110-343	c 31	N81-15154 *	#	US-PATENT-CLASS-117-97	c 36	N75-15029 *	#	US-PATENT-CLASS-126-270	c 34	N74-23039 *	#
US-PATENT-CLASS-110-347	c 31	N81-15154 *	#	US-PATENT-CLASS-118-11	c 15	N71-17647 *	#	US-PATENT-CLASS-126-270	c 44	N76-14595 *	#
US-PATENT-CLASS-112-402	c 18	N71-26285 *	#	US-PATENT-CLASS-118-300	c 71	N84-16940 *	#	US-PATENT-CLASS-126-270	c 44	N76-23675 *	#
US-PATENT-CLASS-113-116	c 15	N71-15587 *	#	US-PATENT-CLASS-118-313	c 17	N71-24811 *	#	US-PATENT-CLASS-126-270	c 44	N76-24696 *	#
US-PATENT-CLASS-114-122	c 02	N73-26006 *	#	US-PATENT-CLASS-118-323	c 51	N77-27677 *	#	US-PATENT-CLASS-126-270	c 35	N77-20401 *	#
US-PATENT-CLASS-114-16.6	c 37	N76-22540 *	#	US-PATENT-CLASS-118-320	c 37	N82-24492 *	#	US-PATENT-CLASS-126-270	c 44	N77-32582 *	#
US-PATENT-CLASS-114-66.5	c 12	N70-33305 *	#	US-PATENT-CLASS-118-423	c 37	N82-12441 *	#	US-PATENT-CLASS-126-270	c 44	N78-15560 *	#
US-PATENT-CLASS-115-103.5	c 51	N75-13502 *	#	US-PATENT-CLASS-118-43	c 25	N75-29192 *	#	US-PATENT-CLASS-126-270	c 44	N78-19599 *	#
US-PATENT-CLASS-116-114.5	c 35	N75-25122 *	#	US-PATENT-CLASS-118-48	c 25	N75-26043 *	#	US-PATENT-CLASS-126-270	c 44	N78-31526 *	#
US-PATENT-CLASS-116-114AH	c 14	N72-25411 *	#	US-PATENT-CLASS-118-49.1	c 15	N72-32487 *	#	US-PATENT-CLASS-126-270	c 44	N78-11471 *	#
US-PATENT-CLASS-116-114AH	c 35	N75-33367 *	#	US-PATENT-CLASS-118-49.1	c 31	N75-12161 *	#	US-PATENT-CLASS-126-270	c 44	N78-14526 *	#
US-PATENT-CLASS-116-117	c 14	N70-42074 *	#								

US-PATENT-CLASS-126-271	c 44	N78-17460 *	US-PATENT-CLASS-128-206	c 09	N71-24618 *	US-PATENT-CLASS-128-400	c 52	N77-14736 *
US-PATENT-CLASS-126-271	c 44	N78-31525 *	US-PATENT-CLASS-128-206	c 05	N71-26293 *	US-PATENT-CLASS-128-402	c 05	N72-20096 *
US-PATENT-CLASS-126-271	c 44	N78-31526 *	US-PATENT-CLASS-128-207	c 05	N73-32015 *	US-PATENT-CLASS-128-402	c 52	N77-14736 *
US-PATENT-CLASS-126-271	c 44	N79-11471 *	US-PATENT-CLASS-128-207	c 52	N74-20728 *	US-PATENT-CLASS-128-410	c 52	N77-28717 *
US-PATENT-CLASS-126-271	c 44	N79-14526 *	US-PATENT-CLASS-128-208	c 05	N69-21473 *	US-PATENT-CLASS-128-417	c 05	N72-25120 *
US-PATENT-CLASS-126-271	c 44	N79-14529 *	US-PATENT-CLASS-128-208	c 05	N73-32015 *	US-PATENT-CLASS-128-417	c 05	N72-27103 *
US-PATENT-CLASS-126-271	c 44	N79-18443 *	US-PATENT-CLASS-128-208	c 52	N74-20728 *	US-PATENT-CLASS-128-418	c 52	N76-29896 *
US-PATENT-CLASS-126-271	c 44	N79-23481 *	US-PATENT-CLASS-128-21A	c 09	N72-17153 *	US-PATENT-CLASS-128-418	c 52	N77-14736 *
US-PATENT-CLASS-126-271	c 44	N79-24433 *	US-PATENT-CLASS-128-21A	c 09	N72-22202 *	US-PATENT-CLASS-128-419P	c 52	N76-29896 *
US-PATENT-CLASS-126-400	c 44	N78-15560 *	US-PATENT-CLASS-128-21A	c 52	N74-26625 *	US-PATENT-CLASS-128-421	c 52	N82-29863 *
US-PATENT-CLASS-126-400	c 44	N79-24433 *	US-PATENT-CLASS-128-21A	c 52	N76-14757 *	US-PATENT-CLASS-128-422	c 52	N82-33996 *
US-PATENT-CLASS-126-415	c 44	N84-34792 *	US-PATENT-CLASS-128-21A	c 52	N76-29894 *	US-PATENT-CLASS-128-62A	c 52	N82-29862 *
US-PATENT-CLASS-126-417	c 44	N80-16452 *	US-PATENT-CLASS-128-21A	c 52	N79-18580 *	US-PATENT-CLASS-128-639	c 52	N79-27836 *
US-PATENT-CLASS-126-417	c 44	N84-22903 *	US-PATENT-CLASS-128-21E	c 05	N72-27103 *	US-PATENT-CLASS-128-642	c 52	N80-27072 *
US-PATENT-CLASS-126-418	c 34	N84-28204 *	US-PATENT-CLASS-128-21E	c 35	N76-24525 *	US-PATENT-CLASS-128-642	c 52	N81-14612 *
US-PATENT-CLASS-126-418	c 44	N80-20810 *	US-PATENT-CLASS-128-21E	c 52	N77-28717 *	US-PATENT-CLASS-128-642	c 52	N81-20703 *
US-PATENT-CLASS-126-419	c 44	N81-17518 *	US-PATENT-CLASS-128-21R	c 05	N73-26072 *	US-PATENT-CLASS-128-660	c 52	N79-26771 *
US-PATENT-CLASS-126-419	c 44	N84-28203 *	US-PATENT-CLASS-128-21Z	c 35	N76-24525 *	US-PATENT-CLASS-128-660	c 52	N83-25758 *
US-PATENT-CLASS-126-422	c 44	N82-18686 *	US-PATENT-CLASS-128-21	c 05	N71-11193 *	US-PATENT-CLASS-128-663	c 52	N83-27578 *
US-PATENT-CLASS-126-429	c 44	N82-18686 *	US-PATENT-CLASS-128-21	c 05	N71-12346 *	US-PATENT-CLASS-128-665	c 52	N81-27783 *
US-PATENT-CLASS-126-430	c 44	N82-18686 *	US-PATENT-CLASS-128-21	c 05	N71-24729 *	US-PATENT-CLASS-128-666	c 52	N80-23969 *
US-PATENT-CLASS-126-434	c 44	N80-20810 *	US-PATENT-CLASS-128-21	c 09	N71-26002 *	US-PATENT-CLASS-128-686	c 52	N82-11770 *
US-PATENT-CLASS-126-437	c 44	N80-20810 *	US-PATENT-CLASS-128-21	c 05	N72-25120 *	US-PATENT-CLASS-128-690	c 52	N80-23969 *
US-PATENT-CLASS-126-438	c 44	N80-14473 *	US-PATENT-CLASS-128-2F	c 54	N76-14804 *	US-PATENT-CLASS-128-691	c 52	N82-11770 *
US-PATENT-CLASS-126-438	c 44	N82-16475 *	US-PATENT-CLASS-128-2H	c 52	N76-14757 *	US-PATENT-CLASS-128-6	c 52	N80-16725 *
US-PATENT-CLASS-126-438	c 44	N84-28203 *	US-PATENT-CLASS-128-2H	c 52	N76-29894 *	US-PATENT-CLASS-128-748	c 52	N80-18691 *
US-PATENT-CLASS-126-438	c 44	N84-28204 *	US-PATENT-CLASS-128-2H	c 52	N77-10780 *	US-PATENT-CLASS-128-760	c 52	N80-18690 *
US-PATENT-CLASS-126-440	c 44	N84-28204 *	US-PATENT-CLASS-128-2H	c 52	N77-14736 *	US-PATENT-CLASS-128-760	c 52	N81-29763 *
US-PATENT-CLASS-126-442	c 44	N80-14473 *	US-PATENT-CLASS-128-2N	c 05	N72-25122 *	US-PATENT-CLASS-128-761	c 52	N81-24711 *
US-PATENT-CLASS-126-451	c 44	N84-28203 *	US-PATENT-CLASS-128-2N	c 05	N73-13114 *	US-PATENT-CLASS-128-774	c 52	N80-27072 *
US-PATENT-CLASS-126-901	c 44	N80-16452 *	US-PATENT-CLASS-128-2P	c 52	N76-29894 *	US-PATENT-CLASS-128-774	c 52	N81-20703 *
US-PATENT-CLASS-126-901	c 44	N83-34449 *	US-PATENT-CLASS-128-2R	c 09	N72-22202 *	US-PATENT-CLASS-128-774	c 52	N83-25346 *
US-PATENT-CLASS-126-91A	c 25	N79-11151 *	US-PATENT-CLASS-128-2R	c 52	N79-12694 *	US-PATENT-CLASS-128-778	c 52	N82-22875 *
US-PATENT-CLASS-126-2.06E	c 05	N75-24716 *	US-PATENT-CLASS-128-2S	c 52	N74-10975 *	US-PATENT-CLASS-128-782	c 52	N80-27072 *
US-PATENT-CLASS-126-2.07	c 52	N79-21750 *	US-PATENT-CLASS-128-2S	c 52	N74-27664 *	US-PATENT-CLASS-128-782	c 39	N83-20280 *
US-PATENT-CLASS-126-DIG.12	c 37	N77-28487 *	US-PATENT-CLASS-128-2S	c 33	N75-31329 *	US-PATENT-CLASS-128-782	c 52	N83-25346 *
US-PATENT-CLASS-126-DIG.12	c 51	N81-14605 *	US-PATENT-CLASS-128-2S	c 33	N76-19338 *	US-PATENT-CLASS-128-784	c 52	N82-33996 *
US-PATENT-CLASS-126-DIG.13	c 52	N83-27577 *	US-PATENT-CLASS-128-2S	c 52	N76-29895 *	US-PATENT-CLASS-128-80F	c 52	N81-25661 *
US-PATENT-CLASS-126-DIG.16	c 51	N81-14605 *	US-PATENT-CLASS-128-2S	c 52	N76-29896 *	US-PATENT-CLASS-128-804	c 52	N82-33996 *
US-PATENT-CLASS-126-DIG.20	c 52	N76-19785 *	US-PATENT-CLASS-128-2V	c 52	N74-20726 *	US-PATENT-CLASS-128-89R	c 52	N81-25662 *
US-PATENT-CLASS-126-DIG.20	c 37	N81-17433 *	US-PATENT-CLASS-128-2V	c 35	N75-12271 *	US-PATENT-CLASS-128-903	c 52	N80-18691 *
US-PATENT-CLASS-126-DIG.25	c 52	N81-25660 *	US-PATENT-CLASS-128-2V	c 54	N75-27760 *	US-PATENT-CLASS-128-92C	c 27	N78-17215 *
US-PATENT-CLASS-126-DIG.25	c 52	N84-11744 *	US-PATENT-CLASS-128-2V	c 52	N79-14751 *	US-PATENT-CLASS-128-92G	c 27	N78-17215 *
US-PATENT-CLASS-126-DIG.26	c 51	N81-14605 *	US-PATENT-CLASS-128-2V	c 52	N79-18580 *	US-PATENT-CLASS-129-16.7	c 08	N71-15908 *
US-PATENT-CLASS-126-DIG.4	c 05	N72-27103 *	US-PATENT-CLASS-128-203	c 54	N76-24900 *	US-PATENT-CLASS-13-20	c 11	N72-23215 *
US-PATENT-CLASS-126-DIG.4	c 05	N75-24716 *	US-PATENT-CLASS-128-204.18	c 51	N81-14605 *	US-PATENT-CLASS-13-20	c 12	N79-26075 *
US-PATENT-CLASS-126-DIG.4	c 35	N76-24525 *	US-PATENT-CLASS-128-206F	c 14	N73-24473 *	US-PATENT-CLASS-13-22	c 12	N79-26075 *
US-PATENT-CLASS-126-DIG.4	c 52	N77-28717 *	US-PATENT-CLASS-128-207.14	c 51	N81-14605 *	US-PATENT-CLASS-13-24	c 12	N79-26075 *
US-PATENT-CLASS-126-DIG.8	c 51	N81-14605 *	US-PATENT-CLASS-128-207.28	c 51	N81-14605 *	US-PATENT-CLASS-13-26	c 33	N71-15625 *
US-PATENT-CLASS-126-DIG.9	c 52	N80-16725 *	US-PATENT-CLASS-128-212	c 54	N80-10799 *	US-PATENT-CLASS-13-26	c 14	N71-23267 *
US-PATENT-CLASS-126-DIG.9	c 51	N81-14605 *	US-PATENT-CLASS-128-214D	c 52	N79-14749 *	US-PATENT-CLASS-13-31	c 11	N72-23215 *
US-PATENT-CLASS-126-1.2	c 52	N82-22875 *	US-PATENT-CLASS-128-214E	c 52	N74-22771 *	US-PATENT-CLASS-13-31	c 31	N74-27900 *
US-PATENT-CLASS-126-1A	c 05	N73-32012 *	US-PATENT-CLASS-128-214F	c 37	N77-28487 *	US-PATENT-CLASS-13-35	c 33	N71-24145 *
US-PATENT-CLASS-126-1A	c 54	N84-16803 *	US-PATENT-CLASS-128-230	c 52	N75-33640 *	US-PATENT-CLASS-134-137	c 37	N82-12441 *
US-PATENT-CLASS-126-1R	c 52	N77-25772 *	US-PATENT-CLASS-128-236	c 51	N81-14605 *	US-PATENT-CLASS-134-17	c 43	N81-26509 *
US-PATENT-CLASS-126-1R	c 52	N77-28716 *	US-PATENT-CLASS-128-24A	c 52	N84-34913 *	US-PATENT-CLASS-134-21	c 37	N76-18456 *
US-PATENT-CLASS-126-1R	c 52	N81-25660 *	US-PATENT-CLASS-128-24A	c 05	N73-27062 *	US-PATENT-CLASS-134-37	c 37	N76-18456 *
US-PATENT-CLASS-126-1R	c 52	N84-11744 *	US-PATENT-CLASS-128-24A	c 54	N75-27760 *	US-PATENT-CLASS-135-1	c 32	N70-36536 *
US-PATENT-CLASS-126-142.2	c 54	N76-24900 *	US-PATENT-CLASS-128-24A	c 05	N71-24738 *	US-PATENT-CLASS-136-100R	c 04	N72-20034 *
US-PATENT-CLASS-126-142.5	c 05	N81-11190 *	US-PATENT-CLASS-128-25R	c 37	N74-18127 *	US-PATENT-CLASS-136-114	c 44	N76-14601 *
US-PATENT-CLASS-126-142.5	c 05	N71-11203 *	US-PATENT-CLASS-128-25	c 05	N71-24738 *	US-PATENT-CLASS-136-132	c 03	N71-11053 *
US-PATENT-CLASS-126-142.5	c 05	N71-17599 *	US-PATENT-CLASS-128-26	c 52	N76-19785 *	US-PATENT-CLASS-136-132	c 03	N71-22974 *
US-PATENT-CLASS-126-142.5	c 05	N72-20096 *	US-PATENT-CLASS-128-272	c 15	N71-24835 *	US-PATENT-CLASS-136-133	c 15	N69-24320 *
US-PATENT-CLASS-126-142.5	c 05	N73-25125 *	US-PATENT-CLASS-128-272	c 52	N79-14749 *	US-PATENT-CLASS-136-133	c 03	N71-23006 *
US-PATENT-CLASS-126-142.7	c 54	N78-32721 *	US-PATENT-CLASS-128-275	c 15	N71-24835 *	US-PATENT-CLASS-136-133	c 03	N72-15986 *
US-PATENT-CLASS-126-142R	c 54	N80-10799 *	US-PATENT-CLASS-128-275	c 52	N81-29763 *	US-PATENT-CLASS-136-135	c 03	N72-15986 *
US-PATENT-CLASS-126-145.8	c 54	N75-27761 *	US-PATENT-CLASS-128-276	c 52	N80-14684 *	US-PATENT-CLASS-136-143	c 44	N76-29699 *
US-PATENT-CLASS-126-15R	c 54	N84-16803 *	US-PATENT-CLASS-128-276	c 52	N80-18690 *	US-PATENT-CLASS-136-146	c 03	N69-21337 *
US-PATENT-CLASS-126-191R	c 25	N74-12813 *	US-PATENT-CLASS-128-280	c 24	N82-29362 *	US-PATENT-CLASS-136-146	c 24	N76-14204 *
US-PATENT-CLASS-126-191R	c 54	N80-10799 *	US-PATENT-CLASS-128-283	c 05	N69-23192 *	US-PATENT-CLASS-136-148	c 24	N76-14204 *
US-PATENT-CLASS-126-1	c 05	N70-41819 *	US-PATENT-CLASS-128-283	c 24	N82-29362 *	US-PATENT-CLASS-136-148	c 44	N82-24845 *
US-PATENT-CLASS-126-1	c 05	N71-20268 *	US-PATENT-CLASS-128-284	c 24	N82-29362 *	US-PATENT-CLASS-136-162	c 44	N76-14601 *
US-PATENT-CLASS-126-2.05A	c 52	N74-26626 *	US-PATENT-CLASS-128-285	c 24	N82-29362 *	US-PATENT-CLASS-136-166	c 03	N71-23336 *
US-PATENT-CLASS-126-2.05A	c 54	N75-13531 *	US-PATENT-CLASS-128-288	c 24	N82-29362 *	US-PATENT-CLASS-136-166	c 03	N72-20032 *
US-PATENT-CLASS-126-2.05E	c 52	N74-27566 *	US-PATENT-CLASS-128-291	c 24	N82-29362 *	US-PATENT-CLASS-136-170	c 03	N71-11051 *
US-PATENT-CLASS-126-2.05E	c 52	N76-29896 *	US-PATENT-CLASS-128-295	c 05	N72-22093 *	US-PATENT-CLASS-136-175	c 03	N72-20034 *
US-PATENT-CLASS-126-2.05F	c 14	N73-32326 *	US-PATENT-CLASS-128-295	c 52	N81-24711 *	US-PATENT-CLASS-136-179	c 03	N70-41864 *
US-PATENT-CLASS-126-2.05P	c 54	N75-13531 *	US-PATENT-CLASS-128-295	c 52	N81-28740 *	US-PATENT-CLASS-136-182	c 03	N71-10728 *
US-PATENT-CLASS-126-2.05R	c 05	N73-27941 *	US-PATENT-CLASS-128-296	c 24	N82-29362 *	US-PATENT-CLASS-136-182	c 03	N71-20407 *
US-PATENT-CLASS-126-2.05R	c 52	N76-29895 *	US-PATENT-CLASS-128-29	c 05	N70-39922 *	US-PATENT-CLASS-136-182	c 03	N71-20491 *
US-PATENT-CLASS-126-2.05R	c 52	N79-10724 *	US-PATENT-CLASS-128-2	c 05	N73-27062 *	US-PATENT-CLASS-136-182	c 44	N74-27519 *
US-PATENT-CLASS-126-2.05S	c 52	N74-26626 *	US-PATENT-CLASS-128-303R	c 52	N83-25346 *	US-PATENT-CLASS-136-182	c 44	N76-14601 *
US-PATENT-CLASS-126-2.05T	c 52	N74-12778 *	US-PATENT-CLASS-128-303R	c 52	N77-28716 *	US-PATENT-CLASS-136-202	c 09	N72-12136 *
US-PATENT-CLASS-126-2.05V	c 35	N76-24525 *	US-PATENT-CLASS-128-305	c 05	N73-27062 *	US-PATENT-CLASS-136-202	c 03	N72-26031 *
US-PATENT-CLASS-126-2.05Z	c 54	N75-27760 *	US-PATENT-CLASS-128-305	c 52	N75-33640 *	US-PATENT-CLASS-136-202	c 44	N76-16612 *
US-PATENT-CLASS-126-2.05Z	c 52	N79-18580 *	US-PATENT-CLASS-128-305	c 52	N78-14773 *	US-PATENT-CLASS-136-202	c 35	N77-32454 *
US-PATENT-CLASS-126-2.05	c 05	N70-41329 *	US-PATENT-CLASS-128-325	c 52	N84-28388 *	US-PATENT-CLASS-136-202	c 35	N79-14346 *
US-PATENT-CLASS-126-2.05	c 04	N71-23185 *	US-PATENT-CLASS-128-327	c 52	N82-11770 *	US-PATENT-CLASS-136-206	c 03	N72-11062 *
US-PATENT-CLASS-126-2.05	c 05	N71-27234 *	US-PATENT-CLASS-128-328	c 52	N84-34913 *	US-PATENT-CLASS-136-206	c 09	N72-12136 *
US-PATENT-CLASS-126-2.06B	c 05	N75-24716 *	US-PATENT-CLASS-128-328R	c 52	N79-27836 *	US-PATENT-CLASS-136-206	c 44	N76-14595 *
US-PATENT-CLASS-126-2.06F	c 52	N76-29896 *	US-PATENT-CLASS-128-346	c 52	N81-25660 *	US-PATENT-CLASS-136-206	c 44	N76-31666 *
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US-PATENT-CLASS-149-36	c 27	N72-25699 *	US-PATENT-CLASS-156-285	c 24	N78-17150 *	US-PATENT-CLASS-156-647	c 33	N81-28360 *
US-PATENT-CLASS-149-36	c 27	N73-16764 *	US-PATENT-CLASS-156-285	c 44	N80-18550 *	US-PATENT-CLASS-156-648	c 33	N81-28360 *
US-PATENT-CLASS-149-36	c 06	N73-30097 *	US-PATENT-CLASS-156-285	c 24	N80-26388 *	US-PATENT-CLASS-156-649	c 33	N81-28360 *
US-PATENT-CLASS-149-36	c 24	N78-14203 *	US-PATENT-CLASS-156-285	c 24	N81-29183 *	US-PATENT-CLASS-156-654	c 76	N83-20789 *
US-PATENT-CLASS-149-37	c 44	N80-20808 *	US-PATENT-CLASS-156-285	c 24	N81-33235 *	US-PATENT-CLASS-156-654	c 35	N84-22930 *
US-PATENT-CLASS-149-42	c 20	N78-32179 *	US-PATENT-CLASS-156-285	c 52	N84-28389 *	US-PATENT-CLASS-156-662	c 76	N83-20789 *
US-PATENT-CLASS-149-43	c 20	N78-32179 *	US-PATENT-CLASS-156-286	c 37	N76-21554 *	US-PATENT-CLASS-156-663	c 27	N77-32308 *
US-PATENT-CLASS-149-44	c 20	N78-32179 *	US-PATENT-CLASS-156-288	c 37	N76-24575 *	US-PATENT-CLASS-156-668	c 52	N84-23095 *
US-PATENT-CLASS-149-60	c 28	N74-33209 *	US-PATENT-CLASS-156-288	c 24	N78-17150 *	US-PATENT-CLASS-156-66	c 15	N72-11392 *
US-PATENT-CLASS-149-76	c 28	N74-33209 *	US-PATENT-CLASS-156-289	c 24	N78-17149 *	US-PATENT-CLASS-156-71	c 33	N82-26571 *
US-PATENT-CLASS-149-76	c 20	N78-32179 *	US-PATENT-CLASS-156-289	c 24	N78-17150 *	US-PATENT-CLASS-156-71	c 35	N84-12443 *
US-PATENT-CLASS-149-83	c 20	N78-32179 *	US-PATENT-CLASS-156-289	c 52	N84-28389 *	US-PATENT-CLASS-156-74	c 24	N81-29183 *
US-PATENT-CLASS-149-85	c 20	N78-32179 *	US-PATENT-CLASS-156-290	c 24	N81-33235 *	US-PATENT-CLASS-156-74	c 74	N75-12732 *
US-PATENT-CLASS-149-88	c 28	N78-31255 *	US-PATENT-CLASS-156-292	c 27	N80-32516 *	US-PATENT-CLASS-156-81	c 27	N84-22748 *
US-PATENT-CLASS-149-82	c 27	N72-25699 *	US-PATENT-CLASS-156-292	c 24	N81-17170 *	US-PATENT-CLASS-156-81	c 15	N72-16330 *
US-PATENT-CLASS-149-82	c 28	N78-31255 *	US-PATENT-CLASS-156-294	c 37	N81-14317 *	US-PATENT-CLASS-156-84	c 37	N82-24491 *
US-PATENT-CLASS-149-83	c 28	N78-31255 *	US-PATENT-CLASS-156-294	c 24	N81-29183 *	US-PATENT-CLASS-156-84	c 37	N82-24491 *
US-PATENT-CLASS-15-143	c 15	N72-11390 *	US-PATENT-CLASS-156-294	c 35	N84-12443 *	US-PATENT-CLASS-156-86	c 15	N72-16330 *
US-PATENT-CLASS-15-210	c 15	N72-11390 *	US-PATENT-CLASS-156-295	c 27	N81-14077 *	US-PATENT-CLASS-156-86	c 37	N82-24491 *
US-PATENT-CLASS-15-230.16	c 37	N79-10422 *	US-PATENT-CLASS-156-300	c 24	N78-17150 *	US-PATENT-CLASS-156-89	c 37	N75-15992 *
US-PATENT-CLASS-15-230.17	c 37	N79-10422 *	US-PATENT-CLASS-156-303	c 44	N80-18550 *	US-PATENT-CLASS-156-89	c 24	N79-25143 *
US-PATENT-CLASS-15-415	c 14	N73-30395 *	US-PATENT-CLASS-156-304.3	c 27	N84-22748 *	US-PATENT-CLASS-156-89	c 27	N84-22748 *
US-PATENT-CLASS-150-11	c 37	N81-14317 *	US-PATENT-CLASS-156-304.6	c 27	N84-22748 *	US-PATENT-CLASS-156-905	c 35	N84-22930 *
US-PATENT-CLASS-150-1	c 52	N79-14749 *	US-PATENT-CLASS-156-306	c 24	N78-17150 *	US-PATENT-CLASS-156-94	c 32	N74-27612 *
US-PATENT-CLASS-151-41.76	c 37	N80-23653 *	US-PATENT-CLASS-156-307.3	c 27	N82-11206 *	US-PATENT-CLASS-156-94	c 24	N74-30001 *
US-PATENT-CLASS-152-11	c 31	N71-18611 *	US-PATENT-CLASS-156-307.5	c 27	N82-11206 *	US-PATENT-CLASS-156-99	c 37	N75-15992 *
US-PATENT-CLASS-152-225	c 15	N71-27091 *	US-PATENT-CLASS-156-308	c 05	N72-25121 *	US-PATENT-CLASS-161-115	c 18	N70-41563 *
US-PATENT-CLASS-152-250	c 15	N71-27091 *	US-PATENT-CLASS-156-308	c 31	N74-18089 *	US-PATENT-CLASS-161-116	c 37	N74-23064 *
US-PATENT-CLASS-152-330RF	c 37	N81-24443 *	US-PATENT-CLASS-156-309	c 27	N78-17205 *	US-PATENT-CLASS-161-127	c 18	N72-25540 *
US-PATENT-CLASS-152-353G	c 37	N81-24443 *	US-PATENT-CLASS-156-311	c 24	N78-17150 *	US-PATENT-CLASS-161-127	c 18	N72-25541 *
US-PATENT-CLASS-152-353R	c 37	N81-24443 *	US-PATENT-CLASS-156-312	c 44	N80-18550 *	US-PATENT-CLASS-161-161	c 33	N71-25351 *
US-PATENT-CLASS-152-378.4	c 37	N81-24443 *	US-PATENT-CLASS-156-315	c 27	N82-24340 *	US-PATENT-CLASS-161-162	c 15	N69-39735 *
US-PATENT-CLASS-156-307.7	c 27	N82-11206 *	US-PATENT-CLASS-156-320	c 15	N72-11392 *	US-PATENT-CLASS-161-162	c 37	N74-18126 *
US-PATENT-CLASS-156-DIG.6-9	c 76	N79-23798 *	US-PATENT-CLASS-156-323	c 27	N81-14077 *	US-PATENT-CLASS-161-169	c 23	N71-15978 *
US-PATENT-CLASS-156-DIG.62	c 76	N77-32919 *	US-PATENT-CLASS-156-328	c 27	N82-29456 *	US-PATENT-CLASS-161-192	c 37	N74-18126 *
US-PATENT-CLASS-156-DIG.62	c 35	N83-24828 *	US-PATENT-CLASS-156-330	c 24	N81-14000 *	US-PATENT-CLASS-161-196	c 37	N74-21063 *
US-PATENT-CLASS-156-DIG.64	c 76	N79-11920 *	US-PATENT-CLASS-156-331.5	c 27	N82-11206 *	US-PATENT-CLASS-161-214	c 06	N73-27980 *
US-PATENT-CLASS-156-DIG.64	c 44	N80-24741 *	US-PATENT-CLASS-156-331	c 37	N74-18126 *	US-PATENT-CLASS-161-227	c 06	N73-27980 *
US-PATENT-CLASS-156-DIG.64	c 76	N80-32245 *	US-PATENT-CLASS-156-331	c 27	N78-17205 *	US-PATENT-CLASS-161-42	c 37	N74-18126 *
US-PATENT-CLASS-156-DIG.64	c 76	N84-35113 *	US-PATENT-CLASS-156-331	c 24	N78-16915 *	US-PATENT-CLASS-161-43	c 37	N74-18126 *
US-PATENT-CLASS-156-DIG.65	c 76	N79-11920 *	US-PATENT-CLASS-156-331	c 27	N81-14077 *	US-PATENT-CLASS-161-67	c 33	N72-17947 *
US-PATENT-CLASS-156-DIG.6	c 76	N83-35888 *	US-PATENT-CLASS-156-338	c 27	N82-24340 *	US-PATENT-CLASS-161-68	c 18	N71-21651 *
US-PATENT-CLASS-156-DIG.73	c 76	N83-35888 *	US-PATENT-CLASS-156-344	c 28	N81-14103 *	US-PATENT-CLASS-161-68	c 18	N72-25540 *
US-PATENT-CLASS-156-DIG.73	c 27	N83-38220 *	US-PATENT-CLASS-156-344	c 31	N83-34073 *	US-PATENT-CLASS-161-68	c 18	N72-25541 *
US-PATENT-CLASS-156-DIG.88	c 76	N79-11920 *	US-PATENT-CLASS-156-345	c 15	N70-42033 *	US-PATENT-CLASS-161-69	c 33	N71-24858 *
US-PATENT-CLASS-156-DIG.88	c 76	N80-32245 *	US-PATENT-CLASS-156-379.7	c 33	N82-26571 *	US-PATENT-CLASS-161-7	c 18	N72-25540 *
US-PATENT-CLASS-156-DIG.89	c 76	N84-35113 *	US-PATENT-CLASS-156-382	c 37	N78-21554 *	US-PATENT-CLASS-161-7	c 18	N72-25541 *
US-PATENT-CLASS-156-DIG.89	c 27	N83-38220 *	US-PATENT-CLASS-156-382	c 52	N84-28389 *	US-PATENT-CLASS-161-89	c 17	N71-28747 *
US-PATENT-CLASS-156-DIG.96	c 76	N80-32244 *	US-PATENT-CLASS-156-391	c 35	N84-12443 *	US-PATENT-CLASS-161-92	c 37	N75-26371 *
US-PATENT-CLASS-156-DIG.96	c 33	N81-19389 *	US-PATENT-CLASS-156-3	c 17	N71-16044 *	US-PATENT-CLASS-161-93	c 18	N73-12604 *
US-PATENT-CLASS-156-DIG.98	c 76	N84-35113 *	US-PATENT-CLASS-156-3	c 15	N71-21404 *	US-PATENT-CLASS-161-93	c 37	N74-18126 *
US-PATENT-CLASS-156-104	c 44	N80-18550 *	US-PATENT-CLASS-156-3	c 15	N71-24047 *	US-PATENT-CLASS-161-93	c 37	N75-26371 *
US-PATENT-CLASS-156-154	c 24	N78-17150 *	US-PATENT-CLASS-156-3	c 06	N72-21094 *	US-PATENT-CLASS-162-102	c 24	N78-14204 *
US-PATENT-CLASS-156-154	c 27	N81-14077 *	US-PATENT-CLASS-156-423	c 35	N84-12443 *	US-PATENT-CLASS-162-14	c 85	N79-17747 *
US-PATENT-CLASS-156-157	c 33	N82-26571 *	US-PATENT-CLASS-156-499	c 27	N84-22748 *	US-PATENT-CLASS-162-153	c 24	N76-14204 *
US-PATENT-CLASS-156-160	c 27	N81-14077 *	US-PATENT-CLASS-156-510	c 15	N71-17687 *	US-PATENT-CLASS-162-222	c 24	N76-14204 *
US-PATENT-CLASS-156-161	c 24	N81-29183 *	US-PATENT-CLASS-156-510	c 03	N72-25018 *	US-PATENT-CLASS-162-226	c 24	N76-14204 *
US-PATENT-CLASS-156-163	c 27	N81-14077 *	US-PATENT-CLASS-156-52	c 31	N79-21226 *	US-PATENT-CLASS-162-29	c 85	N79-17747 *
US-PATENT-CLASS-156-165	c 24	N81-29183 *	US-PATENT-CLASS-156-540	c 35	N84-12443 *	US-PATENT-CLASS-164-105	c 20	N79-21123 *
US-PATENT-CLASS-156-16	c 74	N75-12732 *	US-PATENT-CLASS-156-545	c 15	N71-24184 *	US-PATENT-CLASS-164-119	c 24	N84-16262 *
US-PATENT-CLASS-156-172	c 15	N71-17651 *	US-PATENT-CLASS-156-556	c 37	N78-21554 *	US-PATENT-CLASS-164-132	c 37	N76-23570 *
US-PATENT-CLASS-156-17	c 76	N79-21910 *	US-PATENT-CLASS-156-59	c 31	N83-34073 *	US-PATENT-CLASS-164-331.12	c 27	N83-34041 *
US-PATENT-CLASS-156-18	c 26	N73-26752 *	US-PATENT-CLASS-156-600	c 27	N83-38220 *	US-PATENT-CLASS-164-60	c 24	N77-27187 *
US-PATENT-CLASS-156-18	c 74	N75-12732 *	US-PATENT-CLASS-156-601	c 76	N77-32919 *	US-PATENT-CLASS-165-DIG.6	c 34	N84-22903 *
US-PATENT-CLASS-156-191	c 52	N84-28389 *	US-PATENT-CLASS-156-601	c 76	N80-32245 *	US-PATENT-CLASS-165-104.14	c 05	N81-28114 *
US-PATENT-CLASS-156-212	c 03	N71-26726 *	US-PATENT-CLASS-156-602	c 76	N82-30105 *	US-PATENT-CLASS-165-104.26	c 34	N83-19596 *
US-PATENT-CLASS-156-212	c 24	N80-26388 *	US-PATENT-CLASS-156-605	c 44	N80-24741 *	US-PATENT-CLASS-165-104.26	c 34	N83-35307 *
US-PATENT-CLASS-156-212	c 27	N81-14077 *	US-PATENT-CLASS-156-608	c 76	N79-11920 *	US-PATENT-CLASS-165-104	c 33	N71-25353 *
US-PATENT-CLASS-156-213	c 24	N80-26388 *	US-PATENT-CLASS-156-608	c 33	N81-19389 *	US-PATENT-CLASS-165-105	c 09	N71-24807 *
US-PATENT-CLASS-156-215	c 35	N84-12443 *	US-PATENT-CLASS-156-608	c 76	N82-30105 *	US-PATENT-CLASS-165-105	c 33	N71-25353 *
US-PATENT-CLASS-156-218	c 54	N74-32546 *	US-PATENT-CLASS-156-608	c 76	N83-20789 *	US-PATENT-CLASS-165-105	c 33	N72-17948 *
US-PATENT-CLASS-156-229	c 24	N77-28225 *	US-PATENT-CLASS-156-608	c 76	N83-35888 *	US-PATENT-CLASS-165-105	c 31	N73-30629 *



**US-PATENT-CLASS-179-15.55R**

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US-PATENT-CLASS-179-15AN	c 07	N73-16121 *	US-PATENT-CLASS-188-1C	c 37	N79-10420 *	US-PATENT-CLASS-2-275	c 18	N71-26285 *
US-PATENT-CLASS-179-15AT	c 32	N74-30524 *	US-PATENT-CLASS-188-103	c 15	N71-27146 *	US-PATENT-CLASS-2-6	c 05	N71-26333 *
US-PATENT-CLASS-179-15A	c 08	N72-22162 *	US-PATENT-CLASS-188-129	c 15	N72-17450 *	US-PATENT-CLASS-2-6	c 54	N78-17680 *
US-PATENT-CLASS-179-15A	c 07	N73-26118 *	US-PATENT-CLASS-188-134	c 37	N81-15364 *	US-PATENT-CLASS-2-81	c 18	N71-26265 *
US-PATENT-CLASS-179-15BA	c 60	N77-12721 *	US-PATENT-CLASS-188-151A	c 44	N79-14527 *	US-PATENT-CLASS-2-81	c 05	N73-32012 *
US-PATENT-CLASS-179-15BA	c 32	N80-18252 *	US-PATENT-CLASS-188-163	c 37	N74-26976 *	US-PATENT-CLASS-2-82	c 54	N74-32546 *
US-PATENT-CLASS-179-15BC	c 08	N72-25208 *	US-PATENT-CLASS-188-171	c 37	N74-26976 *	US-PATENT-CLASS-200-114	c 33	N79-33393 *
US-PATENT-CLASS-179-15BC	c 07	N73-16121 *	US-PATENT-CLASS-188-180	c 37	N81-15364 *	US-PATENT-CLASS-200-129	c 33	N75-27249 *
US-PATENT-CLASS-179-15BC	c 32	N74-30523 *	US-PATENT-CLASS-188-184	c 37	N81-15364 *	US-PATENT-CLASS-200-152	c 09	N71-19610 *
US-PATENT-CLASS-179-15BC	c 33	N75-26243 *	US-PATENT-CLASS-188-1	c 15	N70-34861 *	US-PATENT-CLASS-200-153S	c 33	N80-18285 *
US-PATENT-CLASS-179-15BL	c 08	N72-22162 *	US-PATENT-CLASS-188-1	c 15	N70-38601 *	US-PATENT-CLASS-200-19	c 09	N70-39915 *
US-PATENT-CLASS-179-15BM	c 07	N73-26118 *	US-PATENT-CLASS-188-1	c 15	N70-40354 *	US-PATENT-CLASS-200-304	c 33	N80-18285 *
US-PATENT-CLASS-179-15BS	c 10	N71-33407 *	US-PATENT-CLASS-188-1	c 14	N71-17826 *	US-PATENT-CLASS-200-39	c 03	N70-38713 *
US-PATENT-CLASS-179-15BS	c 07	N72-20140 *	US-PATENT-CLASS-188-1	c 15	N71-22877 *	US-PATENT-CLASS-200-46	c 74	N79-12890 *
US-PATENT-CLASS-179-15BS	c 07	N73-30115 *	US-PATENT-CLASS-188-1	c 14	N71-23092 *	US-PATENT-CLASS-200-61.42	c 09	N71-12518 *
US-PATENT-CLASS-179-15BS	c 32	N75-26195 *	US-PATENT-CLASS-188-1	c 15	N71-26243 *	US-PATENT-CLASS-200-61.45	c 14	N70-1812 *
US-PATENT-CLASS-179-15BS	c 60	N77-19760 *	US-PATENT-CLASS-188-1	c 15	N71-27146 *	US-PATENT-CLASS-200-61	c 74	N79-12890 *
US-PATENT-CLASS-179-15BV	c 07	N72-25172 *	US-PATENT-CLASS-188-1	c 15	N71-27169 *	US-PATENT-CLASS-200-64	c 15	N72-17455 *
US-PATENT-CLASS-179-15BY	c 32	N74-30524 *	US-PATENT-CLASS-188-266	c 15	N73-25513 *	US-PATENT-CLASS-200-6	c 10	N71-15009 *
US-PATENT-CLASS-179-15FD	c 08	N72-25208 *	US-PATENT-CLASS-188-266	c 15	N72-20443 *	US-PATENT-CLASS-200-6	c 09	N71-16089 *
US-PATENT-CLASS-179-15FS	c 07	N73-28012 *	US-PATENT-CLASS-188-269	c 44	N79-14527 *	US-PATENT-CLASS-200-81.9M	c 09	N72-20199 *
US-PATENT-CLASS-179-15	c 07	N69-39978 *	US-PATENT-CLASS-188-291	c 54	N77-21844 *	US-PATENT-CLASS-200-81R	c 09	N72-22204 *
US-PATENT-CLASS-179-15	c 07	N71-20814 *	US-PATENT-CLASS-188-371	c 37	N82-18801 *	US-PATENT-CLASS-200-82C	c 09	N72-22204 *
US-PATENT-CLASS-179-15	c 07	N71-24621 *	US-PATENT-CLASS-188-65.1	c 15	N73-25512 *	US-PATENT-CLASS-200-82C	c 10	N71-23663 *
US-PATENT-CLASS-179-15	c 07	N71-24622 *	US-PATENT-CLASS-188-65.5	c 15	N71-27067 *	US-PATENT-CLASS-200-83N	c 35	N75-15931 *
US-PATENT-CLASS-179-15	c 08	N72-18184 *	US-PATENT-CLASS-188-87	c 12	N71-16894 *	US-PATENT-CLASS-200-83	c 33	N79-33392 *
US-PATENT-CLASS-179-175.1A	c 14	N73-27379 *	US-PATENT-CLASS-188-89	c 15	N71-26811 *	US-PATENT-CLASS-201-10	c 27	N81-17261 *
US-PATENT-CLASS-179-175.1A	c 33	N78-10375 *	US-PATENT-CLASS-189-36	c 15	N70-36947 *	US-PATENT-CLASS-201-17	c 44	N78-31527 *
US-PATENT-CLASS-179-18GF	c 33	N82-29538 *	US-PATENT-CLASS-19-205	c 37	N76-18456 *	US-PATENT-CLASS-201-17	c 25	N81-33246 *
US-PATENT-CLASS-179-1	c 07	N71-26181 *	US-PATENT-CLASS-192-43.1	c 15	N71-17805 *	US-PATENT-CLASS-201-17	c 25	N82-29371 *
US-PATENT-CLASS-179-1	c 31	N71-33160 *	US-PATENT-CLASS-195-1.8	c 51	N77-25769 *	US-PATENT-CLASS-201-17	c 25	N83-31743 *
US-PATENT-CLASS-179-27CA	c 32	N79-23310 *	US-PATENT-CLASS-195-1.8	c 51	N79-10694 *	US-PATENT-CLASS-201-25	c 27	N81-17261 *
US-PATENT-CLASS-179-78	c 33	N81-27397 *	US-PATENT-CLASS-195-1.8	c 52	N79-14749 *	US-PATENT-CLASS-201-8	c 27	N81-17261 *
US-PATENT-CLASS-179-84VF	c 32	N79-23310 *	US-PATENT-CLASS-195-103.5K	c 51	N77-22794 *	US-PATENT-CLASS-202-118	c 31	N81-15154 *
US-PATENT-CLASS-179-91R	c 74	N78-14889 *	US-PATENT-CLASS-195-103.5K	c 52	N79-14750 *	US-PATENT-CLASS-202-182	c 05	N71-11207 *
US-PATENT-CLASS-18-26	c 06	N71-22975 *	US-PATENT-CLASS-195-103.5L	c 52	N79-14750 *	US-PATENT-CLASS-202-234	c 15	N71-23086 *
US-PATENT-CLASS-18-39	c 27	N70-34783 *	US-PATENT-CLASS-195-103.5R	c 06	N72-25149 *	US-PATENT-CLASS-203-12	c 25	N82-28368 *
US-PATENT-CLASS-18-6	c 15	N71-26721 *	US-PATENT-CLASS-195-103.5R	c 25	N75-12086 *	US-PATENT-CLASS-204-DIG.11	c 25	N77-32255 *
US-PATENT-CLASS-180-105E	c 11	N72-20244 *	US-PATENT-CLASS-195-103.5R	c 35	N75-27330 *	US-PATENT-CLASS-204-DIG.3	c 25	N84-12262 *
US-PATENT-CLASS-180-118	c 31	N71-15689 *	US-PATENT-CLASS-195-103.5R	c 35	N75-33368 *	US-PATENT-CLASS-204-DIG.3	c 44	N84-23019 *
US-PATENT-CLASS-180-121	c 31	N71-15689 *	US-PATENT-CLASS-195-103.5R	c 51	N76-29891 *	US-PATENT-CLASS-204-1T	c 25	N79-22235 *
US-PATENT-CLASS-180-125	c 15	N72-17451 *	US-PATENT-CLASS-195-103.5R	c 51	N77-22794 *	US-PATENT-CLASS-204-1T	c 51	N81-28698 *
US-PATENT-CLASS-180-127	c 15	N72-17451 *	US-PATENT-CLASS-195-103.5R	c 25	N79-22235 *	US-PATENT-CLASS-204-1T	c 25	N82-12166 *
US-PATENT-CLASS-180-168	c 35	N84-33769 *	US-PATENT-CLASS-195-120	c 51	N75-13502 *	US-PATENT-CLASS-204-1T	c 76	N84-35112 *
US-PATENT-CLASS-180-41	c 11	N73-26238 *	US-PATENT-CLASS-195-120	c 35	N75-27330 *	US-PATENT-CLASS-204-129.55	c 31	N83-19947 *
US-PATENT-CLASS-180-6.5	c 11	N73-26238 *	US-PATENT-CLASS-195-127	c 15	N72-21465 *	US-PATENT-CLASS-204-129.75	c 31	N83-19947 *
US-PATENT-CLASS-180-7R	c 11	N73-26238 *	US-PATENT-CLASS-195-127	c 11	N72-25284 *	US-PATENT-CLASS-204-129	c 28	N81-24280 *
US-PATENT-CLASS-180-79.3	c 37	N74-18125 *	US-PATENT-CLASS-195-127	c 14	N72-25413 *	US-PATENT-CLASS-204-129	c 25	N84-12262 *
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US-PATENT-CLASS-250-238	c 32	N77-28346	*	#	US-PATENT-CLASS-250-363R	c 74	N79-20857	*	#	US-PATENT-CLASS-250-505	c 74	N74-27868	*	#
US-PATENT-CLASS-250-239	c 08	N73-30135	*	#	US-PATENT-CLASS-250-363R	c 74	N84-11820	*	#	US-PATENT-CLASS-250-505	c 35	N75-19616	*	#
US-PATENT-CLASS-250-239	c 74	N78-33913	*	#	US-PATENT-CLASS-250-363S	c 74	N84-11820	*	#	US-PATENT-CLASS-250-508	c 35	N75-19616	*	#
US-PATENT-CLASS-250-251	c 35	N76-15431	*	#	US-PATENT-CLASS-250-367	c 35	N84-33765	*	#	US-PATENT-CLASS-250-51.5	c 23	N73-13662	*	#
US-PATENT-CLASS-250-251	c 35	N84-33767	*	#	US-PATENT-CLASS-250-368	c 74	N81-24900	*	#	US-PATENT-CLASS-250-51.5	c 14	N73-28491	*	#
US-PATENT-CLASS-250-252.1	c 35	N84-33767	*	#	US-PATENT-CLASS-250-368	c 74	N84-11820	*	#	US-PATENT-CLASS-250-510	c 35	N75-19616	*	#
US-PATENT-CLASS-250-253	c 43	N79-31706	*	#	US-PATENT-CLASS-250-369	c 35	N74-15091	*	#	US-PATENT-CLASS-250-511	c 74	N74-27868	*	#
US-PATENT-CLASS-250-272	c 74	N78-15880	*	#	US-PATENT-CLASS-250-369	c 35	N82-32659	*	#	US-PATENT-CLASS-250-513	c 35	N80-28686	*	#
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US-PATENT-CLASS-250-277CH	c 76	N78-24950	*	#	US-PATENT-CLASS-250-370	c 33	N75-31332	*	#	US-PATENT-CLASS-250-51	c 24	N72-11595	*	#
US-PATENT-CLASS-250-277CH	c 74	N80-21140	*	#	US-PATENT-CLASS-250-370	c 35	N82-31659	*	#	US-PATENT-CLASS-250-527	c 37	N76-18458	*	#
US-PATENT-CLASS-250-280	c 76	N78-24950	*	#	US-PATENT-CLASS-250-370	c 44	N82-32641	*	#	US-PATENT-CLASS-250-527	c 25	N77-32255	*	#
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US-PATENT-CLASS-250-287	c 35	N76-15431	*	#	US-PATENT-CLASS-250-374	c 35	N74-26949	*	#	US-PATENT-CLASS-250-531	c 33	N79-15245	*	#
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US-PATENT-CLASS-250-83.3H	c 14	N73-20475	#	US-PATENT-CLASS-252-549	c 23	N75-14834	#	US-PATENT-CLASS-260-2	c 06	N71-11243	#
US-PATENT-CLASS-250-83.3H	c 14	N73-25482	#	US-PATENT-CLASS-252-58	c 18	N70-39897	#	US-PATENT-CLASS-260-2	c 06	N71-20717	#
US-PATENT-CLASS-250-83.3R	c 14	N73-12445	#	US-PATENT-CLASS-252-5	c 25	N83-33977	#	US-PATENT-CLASS-260-2	c 08	N71-20905	#
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US-PATENT-CLASS-250-83.3UV	c 10	N72-17173	#	US-PATENT-CLASS-252-62.3E	c 44	N81-19558	#	US-PATENT-CLASS-260-2	c 27	N78-21180	#
US-PATENT-CLASS-250-83.3UV	c 14	N72-25409	#	US-PATENT-CLASS-252-62.3GA	c 25	N75-26043	#	US-PATENT-CLASS-260-30.2	c 08	N73-27980	#
US-PATENT-CLASS-250-83.3UV	c 06	N73-18108	#	US-PATENT-CLASS-252-62.3	c 26	N71-23292	#	US-PATENT-CLASS-260-30.4N	c 27	N78-17205	#
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US-PATENT-CLASS-250-83CD	c 91	N74-13130	#	US-PATENT-CLASS-254-124	c 20	N76-22296	#	US-PATENT-CLASS-260-33.8EP	c 24	N78-27180	#
US-PATENT-CLASS-250-83R	c 14	N73-12445	#	US-PATENT-CLASS-254-131	c 60	N82-24839	#	US-PATENT-CLASS-260-33.8F	c 27	N78-24405	#
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US-PATENT-CLASS-250-83	c 09	N71-27232	#	US-PATENT-CLASS-254-93R	c 35	N74-13129	#	US-PATENT-CLASS-260-37EP	c 24	N78-24290	#
US-PATENT-CLASS-250-84	c 14	N71-24809	#	US-PATENT-CLASS-254-93R	c 20	N78-22298	#	US-PATENT-CLASS-260-37EP	c 24	N78-27180	#
US-PATENT-CLASS-251-118	c 15	N71-18580	#	US-PATENT-CLASS-255-13.1	c 37	N79-10420	#	US-PATENT-CLASS-260-37EP	c 15	N79-26100	#
US-PATENT-CLASS-251-11	c 15	N70-35407	#	US-PATENT-CLASS-256-1	c 37	N79-10420	#	US-PATENT-CLASS-260-37EP	c 27	N81-17260	#
US-PATENT-CLASS-251-120	c 37	N74-21065	#	US-PATENT-CLASS-256-DIG.18	c 35	N74-15093	#	US-PATENT-CLASS-260-37N	c 27	N79-28307	#
US-PATENT-CLASS-251-121	c 15	N71-18580	#	US-PATENT-CLASS-259-4AC	c 37	N76-19436	#	US-PATENT-CLASS-260-37	c 18	N71-25881	#
US-PATENT-CLASS-251-122	c 15	N73-13482	#	US-PATENT-CLASS-259-4	c 15	N73-19458	#	US-PATENT-CLASS-260-37	c 27	N81-24258	#
US-PATENT-CLASS-251-122	c 37	N74-21085	#	US-PATENT-CLASS-259-60	c 35	N74-15093	#	US-PATENT-CLASS-260-388	c 25	N82-24312	#
US-PATENT-CLASS-251-127	c 12	N71-18615	#	US-PATENT-CLASS-259-71	c 15	N71-21177	#	US-PATENT-CLASS-260-389	c 25	N82-24312	#
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US-PATENT-CLASS-251-129	c 15	N72-20442	#	US-PATENT-CLASS-259-98	c 35	N74-15126	#	US-PATENT-CLASS-260-404.5	c 18	N71-15688	#
US-PATENT-CLASS-251-138	c 37	N80-23654	#	US-PATENT-CLASS-259/4R	c 34	N77-24423	#	US-PATENT-CLASS-260-42.17	c 27	N78-17215	#
US-PATENT-CLASS-251-148	c 15	N71-23024	#	US-PATENT-CLASS-260.46.5E	c 27	N74-21156	#	US-PATENT-CLASS-260-42.43	c 24	N78-27180	#
US-PATENT-CLASS-251-149.6	c 37	N78-14483	#	US-PATENT-CLASS-260-DIG.15	c 27	N78-14164	#	US-PATENT-CLASS-260-429	c 06	N71-28808	#
US-PATENT-CLASS-251-149.9	c 37	N79-11402	#	US-PATENT-CLASS-260-DIG.24	c 27	N74-27037	#	US-PATENT-CLASS-260-42	c 27	N79-28307	#
US-PATENT-CLASS-251-172	c 15	N71-21234	#	US-PATENT-CLASS-260-DIG.24	c 27	N78-24405	#	US-PATENT-CLASS-260-448.2D	c 08	N72-25151	#
US-PATENT-CLASS-251-172	c 37	N79-33469	#	US-PATENT-CLASS-260-DIG.29	c 27	N80-24438	#	US-PATENT-CLASS-260-448.2D	c 08	N73-32030	#
US-PATENT-CLASS-251-173	c 15	N70-33376	#	US-PATENT-CLASS-260-17.2	c 24	N80-26388	#	US-PATENT-CLASS-260-448.2N	c 37	N74-21058	#
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US-PATENT-CLASS-251-216	c 37	N81-17433	#	US-PATENT-CLASS-260-17.4UC	c 23	N81-29180	#	US-PATENT-CLASS-260-45.7R	c 24	N78-27180	#
US-PATENT-CLASS-251-31	c 15	N71-19485	#	US-PATENT-CLASS-260-17A	c 27	N81-14076	#	US-PATENT-CLASS-260-45.7R	c 27	N82-16238	#
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US-PATENT-CLASS-252-26	c 15	N71-21403	#	US-PATENT-CLASS-260-2.5FP	c 27	N74-27037	#	US-PATENT-CLASS-260-47	c 08	N71-28620	#
US-PATENT-CLASS-252-26	c 15	N71-24046	#	US-PATENT-CLASS-260-2.5FP	c 24	N78-24290	#	US-PATENT-CLASS-260-47	c 08	N71-28607	#
US-PATENT-CLASS-252-2	c 25	N83-38118	#	US-PATENT-CLASS-260-2.5F	c 18	N73-13582	#	US-PATENT-CLASS-260-485F	c 08	N73-30098	#
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US-PATENT-CLASS-252-300	c 24	N76-24383	#	US-PATENT-CLASS-260-2.5N	c 24	N78-15180	#	US-PATENT-CLASS-260-520	c 23	N75-30256	#
US-PATENT-CLASS-252-301.1R	c 35	N79-10389	#	US-PATENT-CLASS-260-2.5N	c 27	N78-31232	#	US-PATENT-CLASS-260-535H	c 08	N72-27144	#
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US-PATENT-CLASS-252-301.2	c 18	N71-27170	#	US-PATENT-CLASS-260-2.5R	c 24	N78-15180	#	US-PATENT-CLASS-260-544F	c 08	N72-20121	#
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US-PATENT-CLASS-252-359A	c 37	N77-13418	#	US-PATENT-CLASS-260-2.5	c 08	N71-25929	#	US-PATENT-CLASS-260-567.6M	c 08	N73-32029	#
US-PATENT-CLASS-252-361	c 71	N83-35781	#	US-PATENT-CLASS-260-2.5	c 18	N71-26155	#	US-PATENT-CLASS-260-571	c 23	N78-15268	#
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US-PATENT-CLASS-325-325	c 07	N71-24613 *	US-PATENT-CLASS-328-104	c 10	N73-13235 *	US-PATENT-CLASS-328-61	c 35	N75-30504 *
US-PATENT-CLASS-325-325	c 07	N72-25173 *	US-PATENT-CLASS-328-106	c 09	N72-22201 *	US-PATENT-CLASS-328-62	c 35	N75-30504 *
US-PATENT-CLASS-325-325	c 07	N73-13149 *	US-PATENT-CLASS-328-110	c 09	N71-12519 *	US-PATENT-CLASS-328-63	c 33	N76-14371 *
US-PATENT-CLASS-325-346	c 10	N73-16205 *	US-PATENT-CLASS-328-111	c 60	N77-12721 *	US-PATENT-CLASS-328-63	c 33	N77-24375 *
US-PATENT-CLASS-325-346	c 32	N74-30523 *	US-PATENT-CLASS-328-115	c 33	N75-18479 *	US-PATENT-CLASS-328-67	c 10	N71-28960 *
US-PATENT-CLASS-325-346	c 32	N77-24331 *	US-PATENT-CLASS-328-116	c 09	N69-39685 *	US-PATENT-CLASS-328-67	c 33	N82-24418 *
US-PATENT-CLASS-325-347	c 07	N71-33696 *	US-PATENT-CLASS-328-120	c 09	N71-27016 *	US-PATENT-CLASS-328-71	c 60	N81-15706 *
US-PATENT-CLASS-325-348	c 07	N71-33696 *	US-PATENT-CLASS-328-123	c 60	N74-12888 *	US-PATENT-CLASS-328-82	c 10	N71-28860 *
US-PATENT-CLASS-325-349	c 32	N77-10392 *	US-PATENT-CLASS-328-129	c 14	N73-30386 *	US-PATENT-CLASS-329-104	c 07	N71-11282 *
US-PATENT-CLASS-325-383	c 07	N71-11267 *	US-PATENT-CLASS-328-133	c 09	N71-24596 *	US-PATENT-CLASS-329-104	c 33	N74-12887 *
US-PATENT-CLASS-325-383	c 14	N71-26774 *	US-PATENT-CLASS-328-133	c 10	N72-20224 *	US-PATENT-CLASS-329-104	c 32	N77-24331 *
US-PATENT-CLASS-325-383	c 14	N72-28437 *	US-PATENT-CLASS-328-133	c 33	N75-26243 *	US-PATENT-CLASS-329-107	c 35	N81-19427 *
US-PATENT-CLASS-325-383	c 10	N73-25241 *	US-PATENT-CLASS-328-133	c 33	N77-13315 *	US-PATENT-CLASS-329-119	c 33	N77-21314 *
US-PATENT-CLASS-325-383	c 35	N80-18359 *	US-PATENT-CLASS-328-133	c 33	N79-11313 *	US-PATENT-CLASS-329-120	c 07	N73-30113 *
US-PATENT-CLASS-325-389	c 07	N71-27056 *	US-PATENT-CLASS-328-133	c 33	N84-16454 *	US-PATENT-CLASS-329-122	c 10	N71-19469 *
US-PATENT-CLASS-325-372	c 32	N76-14321 *	US-PATENT-CLASS-328-134	c 08	N71-18692 *	US-PATENT-CLASS-329-122	c 07	N73-28012 *
US-PATENT-CLASS-325-373	c 07	N72-33146 *	US-PATENT-CLASS-328-134	c 14	N73-30386 *	US-PATENT-CLASS-329-122	c 33	N74-12887 *
US-PATENT-CLASS-325-388	c 35	N74-17885 *	US-PATENT-CLASS-328-134	c 33	N76-18331 *	US-PATENT-CLASS-329-122	c 32	N74-20811 *
US-PATENT-CLASS-325-38	c 07	N72-20140 *	US-PATENT-CLASS-328-134	c 33	N81-17349 *	US-PATENT-CLASS-329-122	c 33	N77-14334 *
US-PATENT-CLASS-325-38	c 07	N72-25173 *	US-PATENT-CLASS-328-136	c 09	N72-25257 *	US-PATENT-CLASS-329-122	c 32	N77-24331 *
US-PATENT-CLASS-325-39	c 07	N72-11149 *	US-PATENT-CLASS-328-142	c 09	N72-25257 *	US-PATENT-CLASS-329-122	c 32	N79-14267 *
US-PATENT-CLASS-325-40	c 07	N73-28118 *	US-PATENT-CLASS-328-145	c 09	N72-21245 *	US-PATENT-CLASS-329-122	c 33	N81-33405 *
US-PATENT-CLASS-325-419	c 10	N73-16205 *	US-PATENT-CLASS-328-145	c 32	N76-14321 *	US-PATENT-CLASS-329-124	c 33	N77-14334 *
US-PATENT-CLASS-325-419	c 07	N73-28012 *	US-PATENT-CLASS-328-145	c 09	N72-23173 *	US-PATENT-CLASS-329-124	c 33	N78-32338 *
US-PATENT-CLASS-325-419	c 32	N74-20810 *	US-PATENT-CLASS-328-145	c 33	N78-32339 *	US-PATENT-CLASS-329-124	c 32	N84-27952 *
US-PATENT-CLASS-325-419	c 32	N74-20811 *	US-PATENT-CLASS-328-150	c 33	N78-18308 *	US-PATENT-CLASS-329-126	c 33	N74-12887 *
US-PATENT-CLASS-325-419	c 32	N80-18253 *	US-PATENT-CLASS-328-151	c 09	N72-22200 *	US-PATENT-CLASS-329-140	c 07	N71-24583 *
US-PATENT-CLASS-325-41	c 10	N71-26577 *	US-PATENT-CLASS-328-151	c 33	N75-18479 *	US-PATENT-CLASS-329-145	c 07	N71-33696 *
US-PATENT-CLASS-325-41	c 32	N77-12240 *	US-PATENT-CLASS-328-151	c 33	N81-27396 *	US-PATENT-CLASS-329-161	c 07	N72-20141 *
US-PATENT-CLASS-325-41	c 32	N79-10263 *	US-PATENT-CLASS-328-154	c 08	N72-22162 *	US-PATENT-CLASS-329-162	c 07	N72-20141 *
US-PATENT-CLASS-325-420	c 07	N73-30113 *	US-PATENT-CLASS-328-154	c 10	N73-13235 *	US-PATENT-CLASS-329-166	c 33	N75-19520 *
US-PATENT-CLASS-325-422	c 07	N73-30113 *	US-PATENT-CLASS-328-154	c 33	N74-22814 *	US-PATENT-CLASS-329-166	c 33	N75-25041 *
US-PATENT-CLASS-325-423	c 32	N74-20809 *	US-PATENT-CLASS-328-155	c 10	N72-18172 *	US-PATENT-CLASS-329-204	c 33	N75-19520 *
US-PATENT-CLASS-325-42	c 07	N71-11266 *	US-PATENT-CLASS-328-155	c 09	N72-33204 *	US-PATENT-CLASS-329-204	c 33	N75-25041 *
US-PATENT-CLASS-325-42	c 32	N76-21366 *	US-PATENT-CLASS-328-155	c 33	N74-17927 *	US-PATENT-CLASS-329-205	c 33	N77-21314 *
US-PATENT-CLASS-325-42	c 32	N77-30308 *	US-PATENT-CLASS-328-155	c 17	N76-22245 *	US-PATENT-CLASS-329-50	c 33	N74-17930 *
US-PATENT-CLASS-325-445	c 07	N72-20141 *	US-PATENT-CLASS-328-160	c 32	N74-19788 *	US-PATENT-CLASS-329-50	c 35	N81-19427 *
US-PATENT-CLASS-325-446	c 09	N69-24324 *	US-PATENT-CLASS-328-161	c 33	N77-17354 *	US-PATENT-CLASS-33.8UB	c 27	N81-15104 *
US-PATENT-CLASS-325-45	c 07	N73-25160 *	US-PATENT-CLASS-328-163	c 33	N79-10338 *	US-PATENT-CLASS-33-DIG.13	c 35	N75-12273 *
US-PATENT-CLASS-325-473	c 07	N71-33696 *	US-PATENT-CLASS-328-164	c 07	N71-33696 *	US-PATENT-CLASS-33-DIG.3	c 04	N84-14132 *
US-PATENT-CLASS-325-473	c 10	N73-12244 *	US-PATENT-CLASS-328-165	c 09	N71-24806 *	US-PATENT-CLASS-33-1G	c 37	N76-21554 *
US-PATENT-CLASS-325-473	c 32	N77-30308 *	US-PATENT-CLASS-328-165	c 07	N71-33696 *	US-PATENT-CLASS-33-1M	c 35	N74-32677 *
US-PATENT-CLASS-325-476	c 32	N77-10392 *	US-PATENT-CLASS-328-166	c 10	N72-20223 *	US-PATENT-CLASS-33-1Q	c 43	N79-26439 *
US-PATENT-CLASS-325-478	c 07	N71-33696 *	US-PATENT-CLASS-328-166	c 33	N82-29539 *	US-PATENT-CLASS-33-1Q	c 43	N79-26439 *
US-PATENT-CLASS-325-480	c 07	N71-33696 *	US-PATENT-CLASS-328-167	c 10	N71-22986 *	US-PATENT-CLASS-33-1SA	c 14	N72-28436 *
US-PATENT-CLASS-325-480	c 10	N73-12244 *	US-PATENT-CLASS-328-167	c 08	N71-29034 *	US-PATENT-CLASS-33-1SA	c 19	N74-21015 *
US-PATENT-CLASS-325-482	c 07	N71-33696 *	US-PATENT-CLASS-328-167	c 10	N72-17171 *	US-PATENT-CLASS-33-125R	c 52	N80-27072 *
US-PATENT-CLASS-325-482	c 09	N72-17153 *	US-PATENT-CLASS-328-167	c 09	N72-21245 *	US-PATENT-CLASS-33-125	c 14	N72-11364 *
US-PATENT-CLASS-325-482	c 09	N72-22202 *	US-PATENT-CLASS-328-167	c 09	N73-20231 *	US-PATENT-CLASS-33-143C	c 52	N82-22675 *
US-PATENT-CLASS-325-4	c 07	N71-16088 *	US-PATENT-CLASS-328-167	c 08	N73-26175 *	US-PATENT-CLASS-33-147	c 15	N71-19489 *
US-PATENT-CLASS-325-4	c 07	N71-19773 *	US-PATENT-CLASS-328-167	c 33	N82-24417 *	US-PATENT-CLASS-33-148D	c 35	N75-19615 *
US-PATENT-CLASS-325-4	c 07	N71-24621 *	US-PATENT-CLASS-328-168	c 32	N74-19788 *	US-PATENT-CLASS-33-149	c 14	N71-17657 *
US-PATENT-CLASS-325-4	c 07	N72-11149 *	US-PATENT-CLASS-328-16	c 10	N72-20223 *	US-PATENT-CLASS-33-15A	c 08	N72-11172 *
US-PATENT-CLASS-325-4	c 07	N72-12080 *	US-PATENT-CLASS-328-171	c 10	N71-24844 *	US-PATENT-CLASS-33-155R	c 33	N76-19338 *
US-PATENT-CLASS-325-4	c 07	N72-20140 *	US-PATENT-CLASS-328-172	c 32	N74-19788 *	US-PATENT-CLASS-33-169F	c 35	N84-28018 *
US-PATENT-CLASS-325-4	c 07	N72-25171 *	US-PATENT-CLASS-328-172	c 33	N78-17294 *	US-PATENT-CLASS-33-174B	c 37	N76-21554 *
US-PATENT-CLASS-325-4	c 07	N73-20174 *	US-PATENT-CLASS-328-186	c 09	N72-17157 *	US-PATENT-CLASS-33-174D	c 33	N76-19338 *
US-PATENT-CLASS-325-4	c 15	N75-13007 *	US-PATENT-CLASS-328-187	c 10	N73-20254 *	US-PATENT-CLASS-33-174L	c 43	N79-26439 *
US-PATENT-CLASS-325-4	c 32	N75-26195 *	US-PATENT-CLASS-328-189	c 14	N72-27408 *	US-PATENT-CLASS-33-174S	c 14	N72-22445 *
US-PATENT-CLASS-325-4	c 32	N77-20289 *	US-PATENT-CLASS-328-190	c 33	N76-14371 *	US-PATENT-CLASS-33-174	c 14	N69-21363 *

US-PATENT-CLASS-33-174	c 14	N71-17658 *	US-PATENT-CLASS-330-40	c 07	N71-28430 *	US-PATENT-CLASS-331-30	c 09	N72-21247 *	#
US-PATENT-CLASS-33-174	c 14	N71-24693 *	US-PATENT-CLASS-330-40	c 09	N72-17155 *	US-PATENT-CLASS-331-34	c 07	N72-11150 *	#
US-PATENT-CLASS-33-180R	c 35	N75-12273 *	US-PATENT-CLASS-330-40	c 09	N73-20232 *	US-PATENT-CLASS-331-36C	c 33	N77-14334 *	#
US-PATENT-CLASS-33-189	c 15	N71-26145 *	US-PATENT-CLASS-330-40	c 33	N75-30428 *	US-PATENT-CLASS-331-3	c 35	N78-15438 *	#
US-PATENT-CLASS-33-1	c 14	N70-38907 *	US-PATENT-CLASS-330-43	c 33	N79-10339 *	US-PATENT-CLASS-331-44	c 14	N72-27408 *	#
US-PATENT-CLASS-33-204C	c 08	N72-11172 *	US-PATENT-CLASS-330-43	c 33	N82-26568 *	US-PATENT-CLASS-331-45	c 10	N73-16208 *	#
US-PATENT-CLASS-33-207	c 15	N71-15571 *	US-PATENT-CLASS-330-49	c 14	N70-35220 *	US-PATENT-CLASS-331-48	c 33	N81-17349 *	#
US-PATENT-CLASS-33-23R	c 35	N74-32877 *	US-PATENT-CLASS-330-4	c 16	N71-15550 *	US-PATENT-CLASS-331-4	c 09	N69-21543 *	#
US-PATENT-CLASS-33-268	c 89	N74-30888 *	US-PATENT-CLASS-330-4	c 16	N71-24831 *	US-PATENT-CLASS-331-4	c 33	N74-10184 *	#
US-PATENT-CLASS-33-285	c 38	N74-21091 *	US-PATENT-CLASS-330-4	c 16	N72-28521 *	US-PATENT-CLASS-331-4	c 33	N78-32338 *	#
US-PATENT-CLASS-33-286	c 18	N76-14186 *	US-PATENT-CLASS-330-4	c 38	N75-15029 *	US-PATENT-CLASS-331-62	c 33	N74-11049 *	#
US-PATENT-CLASS-33-293	c 35	N84-16523 *	US-PATENT-CLASS-330-4	c 38	N78-31512 *	US-PATENT-CLASS-331-64	c 33	N78-32338 *	#
US-PATENT-CLASS-33-31	c 14	N71-21079 *	US-PATENT-CLASS-330-4	c 38	N78-18410 *	US-PATENT-CLASS-331-65	c 35	N75-28380 *	#
US-PATENT-CLASS-33-322	c 06	N83-33882 *	US-PATENT-CLASS-330-4	c 38	N80-18372 *	US-PATENT-CLASS-331-65	c 33	N80-23559 *	#
US-PATENT-CLASS-33-348	c 04	N84-14132 *	US-PATENT-CLASS-330-4	c 38	N83-35350 *	US-PATENT-CLASS-331-66	c 07	N72-11150 *	#
US-PATENT-CLASS-33-356	c 04	N76-20114 *	US-PATENT-CLASS-330-5.5	c 71	N77-26619 *	US-PATENT-CLASS-331-78	c 09	N71-23598 *	#
US-PATENT-CLASS-33-356	c 04	N77-19056 *	US-PATENT-CLASS-330-51	c 10	N71-28859 *	US-PATENT-CLASS-331-78	c 08	N73-12175 *	#
US-PATENT-CLASS-33-356	c 04	N84-14132 *	US-PATENT-CLASS-330-51	c 33	N75-22373 *	US-PATENT-CLASS-331-78	c 33	N75-19515 *	#
US-PATENT-CLASS-33-361	c 04	N84-14132 *	US-PATENT-CLASS-330-52	c 71	N78-14867 *	US-PATENT-CLASS-331-7	c 07	N72-11150 *	#
US-PATENT-CLASS-33-366	c 35	N78-32395 *	US-PATENT-CLASS-330-53	c 33	N74-32660 *	US-PATENT-CLASS-331-82	c 33	N84-27974 *	#
US-PATENT-CLASS-33-46R	c 19	N74-21015 *	US-PATENT-CLASS-330-59	c 09	N72-25250 *	US-PATENT-CLASS-331-80	c 09	N73-15235 *	#
US-PATENT-CLASS-33-72	c 15	N72-11386 *	US-PATENT-CLASS-330-59	c 33	N74-21851 *	US-PATENT-CLASS-331-94.5A	c 16	N73-33397 *	#
US-PATENT-CLASS-33-75R	c 14	N72-28438 *	US-PATENT-CLASS-330-59	c 33	N77-14335 *	US-PATENT-CLASS-331-94.5A	c 38	N75-27364 *	#
US-PATENT-CLASS-33-96	c 33	N75-30430 *	US-PATENT-CLASS-330-5	c 33	N75-27251 *	US-PATENT-CLASS-331-94.5C	c 38	N75-31427 *	#
US-PATENT-CLASS-330-103	c 32	N74-22098 *	US-PATENT-CLASS-330-61	c 09	N71-23097 *	US-PATENT-CLASS-331-94.5C	c 38	N78-18428 *	#
US-PATENT-CLASS-330-107	c 10	N72-11256 *	US-PATENT-CLASS-330-63	c 33	N75-30428 *	US-PATENT-CLASS-331-94.5C	c 38	N78-24553 *	#
US-PATENT-CLASS-330-107	c 10	N72-17172 *	US-PATENT-CLASS-330-69	c 33	N74-32712 *	US-PATENT-CLASS-331-94.5C	c 38	N78-29575 *	#
US-PATENT-CLASS-330-107	c 33	N84-14421 *	US-PATENT-CLASS-330-69	c 33	N75-19518 *	US-PATENT-CLASS-331-94.5C	c 38	N80-14384 *	#
US-PATENT-CLASS-330-109	c 10	N72-11256 *	US-PATENT-CLASS-330-6	c 35	N75-13213 *	US-PATENT-CLASS-331-94.5C	c 38	N82-13415 *	#
US-PATENT-CLASS-330-109	c 10	N72-17171 *	US-PATENT-CLASS-330-70CR	c 10	N73-27171 *	US-PATENT-CLASS-331-94.5D	c 33	N74-20659 *	#
US-PATENT-CLASS-330-109	c 10	N72-17172 *	US-PATENT-CLASS-330-70R	c 09	N72-21245 *	US-PATENT-CLASS-331-94.5D	c 38	N77-19416 *	#
US-PATENT-CLASS-330-109	c 09	N73-20231 *	US-PATENT-CLASS-330-80T	c 09	N73-20232 *	US-PATENT-CLASS-331-94.5D	c 38	N77-25502 *	#
US-PATENT-CLASS-330-109	c 33	N82-24417 *	US-PATENT-CLASS-330-85	c 09	N72-21245 *	US-PATENT-CLASS-331-94.5D	c 35	N77-27368 *	#
US-PATENT-CLASS-330-109	c 33	N84-14421 *	US-PATENT-CLASS-330-86	c 09	N73-20231 *	US-PATENT-CLASS-331-94.5D	c 38	N82-13415 *	#
US-PATENT-CLASS-330-109	c 33	N84-22887 *	US-PATENT-CLASS-330-86	c 33	N75-19518 *	US-PATENT-CLASS-331-94.5G	c 38	N75-31426 *	#
US-PATENT-CLASS-330-10	c 33	N74-14939 *	US-PATENT-CLASS-330-86	c 33	N79-22373 *	US-PATENT-CLASS-331-94.5G	c 38	N77-19416 *	#
US-PATENT-CLASS-330-110	c 33	N83-36356 *	US-PATENT-CLASS-330-8	c 33	N81-24338 *	US-PATENT-CLASS-331-94.5G	c 38	N78-17386 *	#
US-PATENT-CLASS-330-11	c 09	N71-13531 *	US-PATENT-CLASS-330-94	c 10	N72-17172 *	US-PATENT-CLASS-331-94.5G	c 38	N78-27402 *	#
US-PATENT-CLASS-330-11	c 10	N71-33129 *	US-PATENT-CLASS-330-9	c 33	N74-14939 *	US-PATENT-CLASS-331-94.5G	c 38	N79-18307 *	#
US-PATENT-CLASS-330-11	c 09	N72-17156 *	US-PATENT-CLASS-331-DIG.1	c 38	N75-30524 *	US-PATENT-CLASS-331-94.5G	c 33	N82-24418 *	#
US-PATENT-CLASS-330-124	c 07	N71-28430 *	US-PATENT-CLASS-331-DIG.2	c 33	N81-33405 *	US-PATENT-CLASS-331-94.5K	c 38	N74-15145 *	#
US-PATENT-CLASS-330-12	c 10	N72-33230 *	US-PATENT-CLASS-331-1A	c 33	N74-10194 *	US-PATENT-CLASS-331-94.5L	c 72	N79-13826 *	#
US-PATENT-CLASS-330-13	c 10	N71-26415 *	US-PATENT-CLASS-331-1A	c 33	N75-25040 *	US-PATENT-CLASS-331-94.5M	c 38	N75-19854 *	#
US-PATENT-CLASS-330-13	c 33	N75-30428 *	US-PATENT-CLASS-331-1A	c 33	N79-11313 *	US-PATENT-CLASS-331-94.5PE	c 38	N75-32441 *	#
US-PATENT-CLASS-330-14	c 09	N70-35440 *	US-PATENT-CLASS-331-107A	c 71	N77-28919 *	US-PATENT-CLASS-331-94.5PE	c 38	N77-19416 *	#
US-PATENT-CLASS-330-14	c 33	N77-14335 *	US-PATENT-CLASS-331-107G	c 26	N72-25679 *	US-PATENT-CLASS-331-94.5PE	c 38	N78-27402 *	#
US-PATENT-CLASS-330-16	c 10	N71-33129 *	US-PATENT-CLASS-331-107G	c 09	N73-15235 *	US-PATENT-CLASS-331-94.5PE	c 72	N79-13826 *	#
US-PATENT-CLASS-330-176	c 10	N72-17171 *	US-PATENT-CLASS-331-107	c 09	N71-18721 *	US-PATENT-CLASS-331-94.5PE	c 33	N82-24418 *	#
US-PATENT-CLASS-330-18	c 09	N72-17155 *	US-PATENT-CLASS-331-107	c 26	N72-21701 *	US-PATENT-CLASS-331-94.5P	c 38	N75-19855 *	#
US-PATENT-CLASS-330-18	c 33	N75-30428 *	US-PATENT-CLASS-331-108A	c 33	N74-20882 *	US-PATENT-CLASS-331-94.5P	c 38	N75-31426 *	#
US-PATENT-CLASS-330-200	c 07	N71-28430 *	US-PATENT-CLASS-331-109	c 10	N71-27271 *	US-PATENT-CLASS-331-94.5P	c 38	N77-25502 *	#
US-PATENT-CLASS-330-207A	c 33	N75-30428 *	US-PATENT-CLASS-331-109	c 33	N74-26732 *	US-PATENT-CLASS-331-94.5P	c 38	N78-27402 *	#
US-PATENT-CLASS-330-20	c 09	N73-20232 *	US-PATENT-CLASS-331-10	c 07	N72-11150 *	US-PATENT-CLASS-331-94.5P	c 72	N79-13826 *	#
US-PATENT-CLASS-330-22	c 09	N71-10788 *	US-PATENT-CLASS-331-111	c 10	N71-23689 *	US-PATENT-CLASS-331-94.5P	c 38	N79-18307 *	#
US-PATENT-CLASS-330-22	c 09	N73-20232 *	US-PATENT-CLASS-331-111	c 09	N72-21247 *	US-PATENT-CLASS-331-94.5P	c 38	N80-14384 *	#
US-PATENT-CLASS-330-24	c 10	N71-33129 *	US-PATENT-CLASS-331-113A	c 09	N72-25253 *	US-PATENT-CLASS-331-94.5P	c 38	N82-13415 *	#
US-PATENT-CLASS-330-24	c 33	N75-30428 *	US-PATENT-CLASS-331-113A	c 09	N72-25254 *	US-PATENT-CLASS-331-94.5S	c 38	N74-15145 *	#
US-PATENT-CLASS-330-26	c 10	N72-17172 *	US-PATENT-CLASS-331-113A	c 33	N74-11049 *	US-PATENT-CLASS-331-94.5S	c 38	N77-25499 *	#
US-PATENT-CLASS-330-27R	c 10	N72-31273 *	US-PATENT-CLASS-331-113R	c 33	N82-18494 *	US-PATENT-CLASS-331-94.5T	c 35	N77-27368 *	#
US-PATENT-CLASS-330-272	c 33	N84-22887 *	US-PATENT-CLASS-331-113	c 09	N70-38995 *	US-PATENT-CLASS-331-94.5T	c 38	N78-17386 *	#
US-PATENT-CLASS-330-287	c 33	N83-36356 *	US-PATENT-CLASS-331-113	c 10	N71-19418 *	US-PATENT-CLASS-331-94.5	c 16	N71-18614 *	#
US-PATENT-CLASS-330-289	c 33	N83-34191 *	US-PATENT-CLASS-331-113	c 09	N71-19470 *	US-PATENT-CLASS-331-94.5	c 16	N71-24632 *	#
US-PATENT-CLASS-330-289	c 33	N84-16454 *	US-PATENT-CLASS-331-113	c 10	N71-25682 *	US-PATENT-CLASS-331-94.5	c 23	N71-26722 *	#
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US-PATENT-CLASS-435-3	c 51	N83-27569 *	US-PATENT-CLASS-52-117	c 44	N77-32582 *	US-PATENT-CLASS-525-417	c 27	N84-22745 *
US-PATENT-CLASS-435-3	c 51	N83-28849 *	US-PATENT-CLASS-52-127	c 15	N71-21531 *	US-PATENT-CLASS-525-426	c 27	N80-26448 *
US-PATENT-CLASS-435-5	c 51	N81-28698 *	US-PATENT-CLASS-52-169	c 15	N72-25454 *	US-PATENT-CLASS-525-426	c 27	N84-22746 *
US-PATENT-CLASS-435-807	c 51	N83-28849 *	US-PATENT-CLASS-52-171	c 11	N73-12265 *	US-PATENT-CLASS-525-474	c 27	N83-28240 *
US-PATENT-CLASS-435-8	c 51	N83-27569 *	US-PATENT-CLASS-52-173R	c 44	N77-31601 *	US-PATENT-CLASS-525-484	c 24	N84-34571 *
US-PATENT-CLASS-44-1R	c 44	N78-31527 *	US-PATENT-CLASS-52-173	c 15	N72-25454 *	US-PATENT-CLASS-525-4	c 25	N80-23383 *
US-PATENT-CLASS-44-1R	c 25	N81-33246 *	US-PATENT-CLASS-52-1	c 15	N72-28496 *	US-PATENT-CLASS-525-534	c 27	N84-22747 *
US-PATENT-CLASS-44-1SR	c 25	N82-29371 *	US-PATENT-CLASS-52-232	c 37	N81-14317 *	US-PATENT-CLASS-525-535	c 27	N84-22747 *
US-PATENT-CLASS-44-1SR	c 25	N83-31743 *	US-PATENT-CLASS-52-236	c 39	N76-31562 *	US-PATENT-CLASS-525-536	c 27	N84-22747 *
US-PATENT-CLASS-44-2	c 44	N78-31527 *	US-PATENT-CLASS-52-249	c 33	N71-25351 *	US-PATENT-CLASS-525-56	c 23	N81-29160 *
US-PATENT-CLASS-44-2	c 25	N81-33246 *	US-PATENT-CLASS-52-272	c 31	N71-24035 *	US-PATENT-CLASS-525-61	c 27	N81-24257 *
US-PATENT-CLASS-44-50	c 27	N81-17261 *	US-PATENT-CLASS-52-284	c 32	N73-13921 *	US-PATENT-CLASS-525-61	c 23	N81-29160 *
US-PATENT-CLASS-44-51	c 25	N79-11152 *	US-PATENT-CLASS-52-2	c 32	N71-21045 *	US-PATENT-CLASS-525-61	c 25	N83-13188 *
US-PATENT-CLASS-44-82	c 27	N81-17261 *	US-PATENT-CLASS-52-2	c 44	N77-32583 *	US-PATENT-CLASS-526-13	c 27	N78-32256 *
US-PATENT-CLASS-44-7R	c 28	N81-14103 *	US-PATENT-CLASS-52-309.1	c 31	N81-25258 *	US-PATENT-CLASS-526-193	c 27	N78-15276 *
US-PATENT-CLASS-44-77	c 06	N71-23499 *	US-PATENT-CLASS-52-3	c 31	N71-16080 *	US-PATENT-CLASS-526-1	c 27	N78-24405 *
US-PATENT-CLASS-455-102	c 33	N81-15192 *	US-PATENT-CLASS-52-404	c 33	N71-25351 *	US-PATENT-CLASS-526-201	c 25	N81-19242 *
US-PATENT-CLASS-455-137	c 35	N82-15381 *	US-PATENT-CLASS-52-404	c 16	N84-22601 *	US-PATENT-CLASS-526-225	c 27	N78-15276 *
US-PATENT-CLASS-455-139	c 35	N82-15381 *	US-PATENT-CLASS-52-506	c 16	N84-22601 *	US-PATENT-CLASS-526-23	c 27	N78-32256 *
US-PATENT-CLASS-455-202	c 33	N82-29539 *	US-PATENT-CLASS-52-51	c 44	N77-31601 *	US-PATENT-CLASS-526-255	c 27	N78-24405 *
US-PATENT-CLASS-455-202	c 32	N84-27952 *	US-PATENT-CLASS-52-573	c 15	N72-28496 *	US-PATENT-CLASS-526-259	c 27	N83-34040 *
US-PATENT-CLASS-455-208	c 33	N82-29539 *	US-PATENT-CLASS-52-594	c 15	N72-25454 *	US-PATENT-CLASS-526-261	c 27	N80-24438 *
US-PATENT-CLASS-455-208	c 32	N84-27952 *	US-PATENT-CLASS-52-594	c 32	N73-13921 *	US-PATENT-CLASS-526-262	c 27	N81-27272 *
US-PATENT-CLASS-455-234	c 33	N82-29539 *	US-PATENT-CLASS-52-632	c 31	N81-27324 *	US-PATENT-CLASS-526-262	c 27	N84-22745 *
US-PATENT-CLASS-455-260	c 32	N84-27952 *	US-PATENT-CLASS-52-637	c 39	N76-31562 *	US-PATENT-CLASS-526-262	c 27	N84-27885 *
US-PATENT-CLASS-455-265	c 32	N84-27952 *	US-PATENT-CLASS-52-645	c 31	N81-25259 *	US-PATENT-CLASS-526-275	c 27	N78-32256 *
US-PATENT-CLASS-455-278	c 32	N81-29308 *	US-PATENT-CLASS-52-648	c 31	N73-32749 *	US-PATENT-CLASS-526-275	c 27	N80-24438 *
US-PATENT-CLASS-455-306	c 33	N82-29539 *	US-PATENT-CLASS-52-648	c 11	N72-25287 *	US-PATENT-CLASS-526-276	c 27	N78-32256 *
US-PATENT-CLASS-455-51	c 32	N81-14186 *	US-PATENT-CLASS-52-648	c 39	N76-31562 *	US-PATENT-CLASS-526-276	c 27	N80-24438 *
US-PATENT-CLASS-455-60	c 35	N82-15381 *	US-PATENT-CLASS-52-648	c 31	N81-25258 *	US-PATENT-CLASS-526-278	c 27	N78-32256 *
US-PATENT-CLASS-455-610	c 74	N82-19029 *	US-PATENT-CLASS-52-64	c 31	N73-32749 *	US-PATENT-CLASS-526-278	c 27	N80-24438 *
US-PATENT-CLASS-455-612	c 74	N82-19029 *	US-PATENT-CLASS-52-651	c 39	N76-31562 *	US-PATENT-CLASS-526-27	c 27	N78-32256 *
US-PATENT-CLASS-455-612	c 74	N82-19029 *	US-PATENT-CLASS-52-655	c 11	N72-25287 *	US-PATENT-CLASS-526-285	c 27	N83-34040 *
US-PATENT-CLASS-455-615	c 74	N82-19029 *	US-PATENT-CLASS-52-705	c 37	N76-19437 *	US-PATENT-CLASS-526-49	c 27	N78-32256 *
US-PATENT-CLASS-455-617	c 74	N82-19029 *	US-PATENT-CLASS-52-71	c 18	N75-27040 *	US-PATENT-CLASS-526-50	c 27	N78-32256 *
US-PATENT-CLASS-455-619	c 32	N81-14186 *	US-PATENT-CLASS-52-726	c 39	N76-31562 *	US-PATENT-CLASS-526-7	c 44	N79-25481 *
US-PATENT-CLASS-455-71	c 32	N81-14186 *	US-PATENT-CLASS-52-726	c 31	N81-25258 *	US-PATENT-CLASS-526-88	c 25	N81-19242 *
US-PATENT-CLASS-467-28	c 39	N80-10507 *	US-PATENT-CLASS-52-743	c 37	N81-14317 *	US-PATENT-CLASS-526-914	c 28	N81-15119 *
US-PATENT-CLASS-47-1.2	c 51	N75-25503 *	US-PATENT-CLASS-52-745	c 39	N76-31562 *	US-PATENT-CLASS-526-9	c 44	N79-25481 *
US-PATENT-CLASS-47-1.4	c 31	N73-32750 *	US-PATENT-CLASS-52-745	c 31	N81-27323 *	US-PATENT-CLASS-526-110	c 24	N84-11213 *
US-PATENT-CLASS-47-17	c 31	N73-32750 *	US-PATENT-CLASS-52-749	c 39	N76-31562 *	US-PATENT-CLASS-526-118	c 27	N81-17260 *
US-PATENT-CLASS-47-26	c 37	N83-26078 *	US-PATENT-CLASS-52-758F	c 37	N76-19437 *	US-PATENT-CLASS-526-125	c 27	N83-34040 *
US-PATENT-CLASS-47-39	c 51	N75-25503 *	US-PATENT-CLASS-52-808	c 24	N84-11214 *	US-PATENT-CLASS-526-125	c 27	N84-22749 *
US-PATENT-CLASS-47-58	c 51	N75-25503 *	US-PATENT-CLASS-52-808	c 24	N84-11214 *	US-PATENT-CLASS-526-126	c 27	N79-28307 *
US-PATENT-CLASS-47-58	c 51	N83-17045 *	US-PATENT-CLASS-52-80	c 18	N72-25540 *	US-PATENT-CLASS-526-126	c 27	N82-11206 *



## US-PATENT-CLASS-528-126

US-PATENT-CLASS-528-126 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-127 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-128 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-128 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-128 ..... c 27 N84-22749 \* #  
US-PATENT-CLASS-528-12 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-168 ..... c 27 N81-27271 \* #  
US-PATENT-CLASS-528-168 ..... c 27 N82-18389 \* #  
US-PATENT-CLASS-528-172 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-172 ..... c 27 N84-22749 \* #  
US-PATENT-CLASS-528-173 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-180 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-183 ..... c 27 N84-22746 \* #  
US-PATENT-CLASS-528-185 ..... c 27 N84-22749 \* #  
US-PATENT-CLASS-528-207 ..... c 27 N80-16158 \* #  
US-PATENT-CLASS-528-207 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-208 ..... c 27 N80-16158 \* #  
US-PATENT-CLASS-528-208 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-210 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-211 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-220 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-220 ..... c 27 N84-22746 \* #  
US-PATENT-CLASS-528-221 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-222 ..... c 27 N81-29229 \* #  
US-PATENT-CLASS-528-222 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-222 ..... c 27 N83-34041 \* #  
US-PATENT-CLASS-528-223 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-225 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-225 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-226 ..... c 27 N83-34041 \* #  
US-PATENT-CLASS-528-227 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-228 ..... c 27 N81-27272 \* #  
US-PATENT-CLASS-528-228 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-228 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-228 ..... c 27 N84-22745 \* #  
US-PATENT-CLASS-528-229 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-229 ..... c 27 N79-33318 \* #  
US-PATENT-CLASS-528-229 ..... c 27 N81-29229 \* #  
US-PATENT-CLASS-528-229 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-26 ..... c 27 N84-22747 \* #  
US-PATENT-CLASS-528-26 ..... c 27 N84-22747 \* #  
US-PATENT-CLASS-528-271 ..... c 27 N84-27884 \* #  
US-PATENT-CLASS-528-310 ..... c 27 N81-17262 \* #  
US-PATENT-CLASS-528-310 ..... c 27 N81-24256 \* #  
US-PATENT-CLASS-528-310 ..... c 27 N82-24338 \* #  
US-PATENT-CLASS-528-310 ..... c 27 N84-27884 \* #  
US-PATENT-CLASS-528-322 ..... c 27 N81-17260 \* #  
US-PATENT-CLASS-528-322 ..... c 27 N84-22745 \* #  
US-PATENT-CLASS-528-322 ..... c 27 N84-27885 \* #  
US-PATENT-CLASS-528-327 ..... c 27 N84-27884 \* #  
US-PATENT-CLASS-528-328 ..... c 27 N82-24338 \* #  
US-PATENT-CLASS-528-331 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-331 ..... c 27 N84-27884 \* #  
US-PATENT-CLASS-528-336 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-337 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-338 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-342 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-528-342 ..... c 27 N84-27885 \* #  
US-PATENT-CLASS-528-345 ..... c 27 N84-22746 \* #  
US-PATENT-CLASS-528-348 ..... c 27 N82-24338 \* #  
US-PATENT-CLASS-528-351 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-353 ..... c 27 N81-19296 \* #  
US-PATENT-CLASS-528-363 ..... c 27 N82-11206 \* #  
US-PATENT-CLASS-528-361 ..... c 24 N84-11213 \* #  
US-PATENT-CLASS-528-362 ..... c 25 N81-14016 \* #  
US-PATENT-CLASS-528-362 ..... c 27 N81-17259 \* #  
US-PATENT-CLASS-528-362 ..... c 27 N81-17262 \* #  
US-PATENT-CLASS-528-362 ..... c 27 N82-24338 \* #  
US-PATENT-CLASS-528-362 ..... c 27 N84-22744 \* #  
US-PATENT-CLASS-528-362 ..... c 27 N84-27884 \* #  
US-PATENT-CLASS-528-368 ..... c 27 N83-34040 \* #  
US-PATENT-CLASS-528-394 ..... c 27 N84-22750 \* #  
US-PATENT-CLASS-528-399 ..... c 27 N81-27271 \* #  
US-PATENT-CLASS-528-399 ..... c 27 N82-18389 \* #  
US-PATENT-CLASS-528-399 ..... c 27 N84-22750 \* #  
US-PATENT-CLASS-528-401 ..... c 27 N79-22300 \* #  
US-PATENT-CLASS-528-401 ..... c 25 N81-14016 \* #  
US-PATENT-CLASS-528-401 ..... c 27 N81-17259 \* #  
US-PATENT-CLASS-528-401 ..... c 27 N81-17262 \* #  
US-PATENT-CLASS-528-401 ..... c 27 N82-24338 \* #  
US-PATENT-CLASS-528-401 ..... c 23 N82-28353 \* #  
US-PATENT-CLASS-528-401 ..... c 27 N84-22744 \* #  
US-PATENT-CLASS-528-402 ..... c 25 N82-24312 \* #  
US-PATENT-CLASS-528-407 ..... c 24 N84-34571 \* #  
US-PATENT-CLASS-528-422 ..... c 27 N79-22300 \* #  
US-PATENT-CLASS-528-422 ..... c 25 N81-14016 \* #  
US-PATENT-CLASS-528-422 ..... c 27 N81-17259 \* #  
US-PATENT-CLASS-528-422 ..... c 27 N81-17262 \* #  
US-PATENT-CLASS-528-422 ..... c 27 N82-24338 \* #  
US-PATENT-CLASS-528-422 ..... c 23 N82-28353 \* #  
US-PATENT-CLASS-528-422 ..... c 27 N84-22744 \* #  
US-PATENT-CLASS-528-423 ..... c 27 N81-17259 \* #  
US-PATENT-CLASS-528-423 ..... c 27 N84-22744 \* #  
US-PATENT-CLASS-528-481 ..... c 27 N80-24438 \* #  
US-PATENT-CLASS-528-4 ..... c 27 N81-27271 \* #  
US-PATENT-CLASS-528-4 ..... c 27 N82-18389 \* #

US-PATENT-CLASS-528-6 ..... c 27 N81-27271 \* #  
US-PATENT-CLASS-528-6 ..... c 27 N82-18389 \* #  
US-PATENT-CLASS-528-6 ..... c 27 N84-22750 \* #  
US-PATENT-CLASS-528-73 ..... c 25 N80-16118 \* #  
US-PATENT-CLASS-528-7 ..... c 27 N82-18389 \* #  
US-PATENT-CLASS-528-7 ..... c 27 N84-22750 \* #  
US-PATENT-CLASS-528-92 ..... c 24 N84-34571 \* #  
US-PATENT-CLASS-53-102 ..... c 15 N71-21528 \* #  
US-PATENT-CLASS-53-112A ..... c 15 N73-27405 \* #  
US-PATENT-CLASS-53-22A ..... c 15 N73-27405 \* #  
US-PATENT-CLASS-53-22 ..... c 15 N71-23256 \* #  
US-PATENT-CLASS-53-429 ..... c 09 N82-28330 \* #  
US-PATENT-CLASS-53-9 ..... c 37 N77-23482 \* #  
US-PATENT-CLASS-536-105 ..... c 27 N77-30238 \* #  
US-PATENT-CLASS-536-85 ..... c 27 N77-30236 \* #  
US-PATENT-CLASS-536-56 ..... c 27 N77-30236 \* #  
US-PATENT-CLASS-536-84 ..... c 27 N77-30236 \* #  
US-PATENT-CLASS-538-117 ..... c 27 N81-17260 \* #  
US-PATENT-CLASS-544-193 ..... c 27 N78-15278 \* #  
US-PATENT-CLASS-544-193 ..... c 27 N79-28307 \* #  
US-PATENT-CLASS-544-195 ..... c 27 N78-32256 \* #  
US-PATENT-CLASS-544-215 ..... c 27 N84-22744 \* #  
US-PATENT-CLASS-547-131 ..... c 23 N82-28353 \* #  
US-PATENT-CLASS-548-413 ..... c 27 N83-31854 \* #  
US-PATENT-CLASS-548-415 ..... c 27 N83-31854 \* #  
US-PATENT-CLASS-548-415 ..... c 27 N84-22745 \* #  
US-PATENT-CLASS-55-DIG.25 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-DIG.30 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-DIG.35 ..... c 54 N75-27761 \* #  
US-PATENT-CLASS-55-100 ..... c 35 N78-12390 \* #  
US-PATENT-CLASS-55-100 ..... c 25 N78-25148 \* #  
US-PATENT-CLASS-55-101 ..... c 25 N78-25148 \* #  
US-PATENT-CLASS-55-105 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-118 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-122 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-126 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-127 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-12 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-131 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-138 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-139 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-145 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-15-8 ..... c 52 N79-14749 \* #  
US-PATENT-CLASS-55-155 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-158 ..... c 18 N71-20742 \* #  
US-PATENT-CLASS-55-158 ..... c 44 N77-22607 \* #  
US-PATENT-CLASS-55-158 ..... c 25 N82-21269 \* #  
US-PATENT-CLASS-55-159 ..... c 34 N74-30608 \* #  
US-PATENT-CLASS-55-159 ..... c 37 N79-21345 \* #  
US-PATENT-CLASS-55-15 ..... c 71 N83-35781 \* #  
US-PATENT-CLASS-55-160 ..... c 15 N71-15968 \* #  
US-PATENT-CLASS-55-16 ..... c 06 N72-31140 \* #  
US-PATENT-CLASS-55-179 ..... c 14 N71-17588 \* #  
US-PATENT-CLASS-55-179 ..... c 54 N77-32722 \* #  
US-PATENT-CLASS-55-194 ..... c 35 N83-29652 \* #  
US-PATENT-CLASS-55-197 ..... c 23 N77-17161 \* #  
US-PATENT-CLASS-55-199 ..... c 34 N74-30608 \* #  
US-PATENT-CLASS-55-202 ..... c 35 N83-29652 \* #  
US-PATENT-CLASS-55-204 ..... c 15 N71-23023 \* #  
US-PATENT-CLASS-55-204 ..... c 44 N83-10501 \* #  
US-PATENT-CLASS-55-208 ..... c 14 N71-18483 \* #  
US-PATENT-CLASS-55-241 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-242 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-26-9 ..... c 35 N78-12390 \* #  
US-PATENT-CLASS-55-261 ..... c 35 N78-18401 \* #  
US-PATENT-CLASS-55-269 ..... c 54 N77-32722 \* #  
US-PATENT-CLASS-55-270 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-277 ..... c 71 N83-35781 \* #  
US-PATENT-CLASS-55-283 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-291 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-2 ..... c 25 N78-25148 \* #  
US-PATENT-CLASS-55-2 ..... c 28 N81-14103 \* #  
US-PATENT-CLASS-55-2 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-306 ..... c 28 N70-34788 \* #  
US-PATENT-CLASS-55-35 ..... c 05 N70-41297 \* #  
US-PATENT-CLASS-55-360 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-386 ..... c 35 N75-26334 \* #  
US-PATENT-CLASS-55-38 ..... c 71 N83-35781 \* #  
US-PATENT-CLASS-55-3 ..... c 35 N78-12390 \* #  
US-PATENT-CLASS-55-400 ..... c 11 N71-10777 \* #  
US-PATENT-CLASS-55-407 ..... c 35 N79-17192 \* #  
US-PATENT-CLASS-55-408 ..... c 15 N70-40062 \* #  
US-PATENT-CLASS-55-418 ..... c 15 N71-22721 \* #  
US-PATENT-CLASS-55-43 ..... c 34 N74-30608 \* #  
US-PATENT-CLASS-55-446 ..... c 15 N72-22489 \* #  
US-PATENT-CLASS-55-464 ..... c 15 N72-22489 \* #  
US-PATENT-CLASS-55-466 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-493 ..... c 14 N72-23457 \* #  
US-PATENT-CLASS-55-498 ..... c 14 N72-23457 \* #  
US-PATENT-CLASS-55-502 ..... c 14 N72-23457 \* #  
US-PATENT-CLASS-55-510 ..... c 25 N74-12813 \* #  
US-PATENT-CLASS-55-518 ..... c 25 N74-12813 \* #  
US-PATENT-CLASS-55-521 ..... c 14 N72-23457 \* #  
US-PATENT-CLASS-55-523 ..... c 34 N76-27515 \* #  
US-PATENT-CLASS-55-526 ..... c 34 N76-27515 \* #

US-PATENT-CLASS-55-52 ..... c 71 N83-35781 \* #  
US-PATENT-CLASS-55-55 ..... c 06 N72-31140 \* #  
US-PATENT-CLASS-55-66 ..... c 25 N80-23383 \* #  
US-PATENT-CLASS-55-67 ..... c 23 N77-17161 \* #  
US-PATENT-CLASS-55-67 ..... c 25 N80-23383 \* #  
US-PATENT-CLASS-55-68 ..... c 25 N80-23383 \* #  
US-PATENT-CLASS-55-6 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-55-72 ..... c 25 N80-23383 \* #  
US-PATENT-CLASS-55-73 ..... c 45 N79-12584 \* #  
US-PATENT-CLASS-55-74 ..... c 23 N77-17161 \* #  
US-PATENT-CLASS-55-75 ..... c 15 N71-26185 \* #  
US-PATENT-CLASS-55-96 ..... c 35 N84-17555 \* #  
US-PATENT-CLASS-564-229 ..... c 27 N81-24256 \* #  
US-PATENT-CLASS-564-229 ..... c 23 N82-28353 \* #  
US-PATENT-CLASS-564-243 ..... c 27 N84-22744 \* #  
US-PATENT-CLASS-568-2 ..... c 27 N82-18389 \* #  
US-PATENT-CLASS-568-445 ..... c 23 N82-16174 \* #  
US-PATENT-CLASS-568-497 ..... c 23 N82-16174 \* #  
US-PATENT-CLASS-568-4 ..... c 27 N82-18389 \* #  
US-PATENT-CLASS-568-4 ..... c 27 N84-22750 \* #  
US-PATENT-CLASS-568-5 ..... c 27 N82-18389 \* #  
US-PATENT-CLASS-568-5 ..... c 27 N84-22750 \* #  
US-PATENT-CLASS-568-852 ..... c 27 N80-32514 \* #  
US-PATENT-CLASS-568-861 ..... c 27 N80-32514 \* #  
US-PATENT-CLASS-57-906 ..... c 37 N82-18601 \* #  
US-PATENT-CLASS-570-123 ..... c 25 N82-24312 \* #  
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US-PATENT-3,337,790	c 12	N71-20896	US-PATENT-3,365,941	c 14	N71-22965	US-PATENT-3,394,975	c 23	N71-30027
US-PATENT-3,337,812	c 09	N71-23097	US-PATENT-3,366,886	c 10	N71-22962	US-PATENT-3,395,053	c 18	N71-23047
US-PATENT-3,339,404	c 14	N71-22765	US-PATENT-3,366,894	c 10	N71-23084	US-PATENT-3,395,565	c 14	N73-30390
US-PATENT-3,339,863	c 14	N71-23040	US-PATENT-3,367,114	c 28	N71-23081	US-PATENT-3,396,057	c 26	N71-23043
US-PATENT-3,340,099	c 03	N71-23006	US-PATENT-3,367,121	c 15	N71-23025	US-PATENT-3,396,184	c 06	N71-28808
US-PATENT-3,340,395	c 14	N71-23041	US-PATENT-3,367,182	c 33	N71-23085	US-PATENT-3,396,303	c 09	N71-22987
US-PATENT-3,340,397	c 11	N71-23042	US-PATENT-3,367,224	c 15	N71-22798	US-PATENT-3,396,584	c 14	N71-30026
US-PATENT-3,340,430	c 09	N71-22796	US-PATENT-3,367,271	c 15	N71-24042	US-PATENT-3,396,719	c 52	N79-21750
US-PATENT-3,340,532	c 10	N71-21473	US-PATENT-3,367,308	c 11	N71-22875	US-PATENT-3,396,820	c 31	N71-29050
US-PATENT-3,340,599	c 09	N71-23027	US-PATENT-3,367,445	c 15	N71-23048	US-PATENT-3,397,094	c 26	N71-29156
US-PATENT-3,340,713	c 15	N71-22723	US-PATENT-3,368,466	c 15	N71-22874	US-PATENT-3,397,117	c 15	N71-23086
US-PATENT-3,340,732	c 02	N71-23007	US-PATENT-3,369,222	c 08	N71-22707	US-PATENT-3,397,318	c 14	N71-22991
US-PATENT-3,341,151	c 31	N71-23009	US-PATENT-3,369,223	c 08	N71-22710	US-PATENT-3,397,512	c 15	N71-23023
US-PATENT-3,341,169	c 15	N71-23024	US-PATENT-3,369,564	c 15	N71-23051	US-PATENT-3,397,537	c 20	N79-21125
US-PATENT-3,341,708	c 16	N71-22895	US-PATENT-3,370,039	c 06	N71-28807	US-PATENT-3,397,832	c 15	N71-22982
US-PATENT-3,341,778	c 07	N71-23098	US-PATENT-3,372,588	c 33	N71-29051	US-PATENT-3,399,299	c 10	N71-23662
US-PATENT-3,341,977	c 15	N71-22705	US-PATENT-3,373,016	c 26	N75-27127	US-PATENT-3,399,574	c 32	N71-24285
US-PATENT-3,342,055	c 15	N71-22797	US-PATENT-3,373,069	c 15	N71-23052	US-PATENT-3,402,265	c 09	N73-28084
US-PATENT-3,342,066	c 11	N71-23030	US-PATENT-3,373,404	c 08	N71-22749	US-PATENT-3,404,289	c 09	N71-23545
US-PATENT-3,342,653	c 15	N71-22713	US-PATENT-3,373,430	c 09	N71-22888	US-PATENT-3,404,348	c 32	N74-22096
US-PATENT-3,343,180	c 05	N71-23159	US-PATENT-3,373,431	c 07	N71-22750	US-PATENT-3,405,406	c 05	N71-23161
US-PATENT-3,343,189	c 05	N71-22748	US-PATENT-3,373,640	c 15	N71-22722	US-PATENT-3,405,887	c 31	N71-24315
US-PATENT-3,344,340	c 09	N71-21449	US-PATENT-3,373,914	c 15	N71-23050	US-PATENT-3,406,336	c 10	N71-24883
US-PATENT-3,344,425	c 10	N71-21483	US-PATENT-3,374,339	c 08	N71-22897	US-PATENT-3,406,742	c 33	N71-24276
US-PATENT-3,345,820	c 28	N71-21822	US-PATENT-3,374,366	c 09	N71-23015	US-PATENT-3,407,304	c 14	N71-23240
US-PATENT-3,345,822	c 27	N71-21819	US-PATENT-3,374,830	c 33	N71-22890	US-PATENT-3,408,816	c 28	N71-24736
US-PATENT-3,345,840	c 15	N71-21536	US-PATENT-3,375,451	c 10	N71-22886	US-PATENT-3,408,870	c 14	N71-23227
US-PATENT-3,345,866	c 11	N71-21481	US-PATENT-3,375,479	c 15	N71-23049	US-PATENT-3,408,874	c 33	N71-28903
US-PATENT-3,346,419	c 03	N71-20895	US-PATENT-3,375,712	c 35	N75-29382	US-PATENT-3,408,882	c 15	N71-23255
US-PATENT-3,346,442	c 18	N71-21651	US-PATENT-3,375,885	c 15	N73-32382	US-PATENT-3,409,554	c 26	N71-23292
US-PATENT-3,346,515	c 06	N71-20905	US-PATENT-3,376,730	c 14	N71-22995	US-PATENT-3,409,730	c 33	N71-24145
US-PATENT-3,346,724	c 15	N71-21179	US-PATENT-3,377,208	c 14	N71-23039	US-PATENT-3,411,356	c 14	N71-23226
US-PATENT-3,346,806	c 14	N71-21090	US-PATENT-3,377,845	c 14	N71-22992	US-PATENT-3,411,900	c 26	N75-27126
US-PATENT-3,346,829	c 15	N71-21076	US-PATENT-3,378,315	c 15	N71-22997	US-PATENT-3,412,559	c 28	N71-23293
US-PATENT-3,347,046	c 33	N71-21507	US-PATENT-3,378,657	c 33	N79-33392	US-PATENT-3,412,598	c 14	N71-23225
US-PATENT-3,347,309	c 33	N71-29046	US-PATENT-3,378,851	c 05	N71-23096	US-PATENT-3,412,729	c 04	N71-23185
US-PATENT-3,347,465	c 18	N71-21068	US-PATENT-3,378,882	c 15	N71-22994	US-PATENT-3,412,961	c 32	N71-23971
US-PATENT-3,347,466	c 28	N71-21493	US-PATENT-3,379,052	c 14	N73-32321	US-PATENT-3,413,115	c 17	N71-23365
US-PATENT-3,347,531	c 15	N71-21177	US-PATENT-3,379,084	c 14	N71-23093	US-PATENT-3,413,383	c 17	N71-29137
US-PATENT-3,347,865	c 17	N71-20743	US-PATENT-3,379,330	c 23	N71-22881	US-PATENT-3,413,510	c 09	N71-23190
US-PATENT-3,348,048	c 14	N71-21088	US-PATENT-3,379,885	c 09	N71-22985	US-PATENT-3,413,536	c 03	N71-24605
US-PATENT-3,348,053	c 10	N71-20782	US-PATENT-3,379,974	c 14	N71-22990	US-PATENT-3,414,012	c 09	N71-23191
US-PATENT-3,348,152	c 10	N71-20841	US-PATENT-3,380,042	c 07	N71-23001	US-PATENT-3,414,358	c 14	N71-23175
US-PATENT-3,348,218	c 10	N71-29135	US-PATENT-3,380,049	c 10	N71-23099	US-PATENT-3,415,032	c 15	N71-23256
US-PATENT-3,348,814	c 33	N71-20834	US-PATENT-3,381,339	c 06	N71-22975	US-PATENT-3,415,069	c 15	N71-24044
US-PATENT-3,350,033	c 14	N71-21082	US-PATENT-3,381,517	c 09	N71-22988	US-PATENT-3,415,116	c 14	N71-23790
US-PATENT-3,350,034	c 31	N71-21084	US-PATENT-3,381,527	c 15	N71-22878	US-PATENT-3,415,126	c 21	N71-23289
US-PATENT-3,350,643	c 07	N71-20791	US-PATENT-3,381,569	c 21	N71-22880	US-PATENT-3,415,156	c 15	N71-24043
US-PATENT-3,350,671	c 09	N71-20842	US-PATENT-3,381,778	c 15	N71-22877	US-PATENT-3,415,843	c 17	N71-23248
US-PATENT-3,350,926	c 14	N71-21091	US-PATENT-3,382,082	c 18	N71-22998	US-PATENT-3,416,106	c 09	N71-24808
US-PATENT-3,352,157	c 14	N71-21072	US-PATENT-3,382,105	c 03	N71-29044	US-PATENT-3,416,274	c 31	N71-24035
US-PATENT-3,352,192	c 15	N71-21489	US-PATENT-3,382,107	c 03	N71-22974	US-PATENT-3,416,939	c 18	N71-24183
US-PATENT-3,352,774	c 37	N80-14395	US-PATENT-3,382,714	c 14	N71-22989	US-PATENT-3,416,975	c 17	N71-23828
US-PATENT-3,353,359	c 28	N71-20942	US-PATENT-3,383,461	c 07	N71-23028	US-PATENT-3,416,988	c 15	N71-24164
US-PATENT-3,354,098	c 06	N71-20717	US-PATENT-3,383,524	c 10	N71-23029	US-PATENT-3,417,247	c 14	N71-23787
US-PATENT-3,354,320	c 23	N71-21821	US-PATENT-3,383,903	c 14	N71-23036	US-PATENT-3,417,266	c 09	N71-23270
US-PATENT-3,354,462	c 14	N71-21006	US-PATENT-3,383,922	c 14	N71-22752	US-PATENT-3,417,298	c 10	N71-23271
US-PATENT-3,355,861	c 18	N71-20742	US-PATENT-3,384,016	c 31	N71-23008	US-PATENT-3,417,316	c 14	N71-23174
US-PATENT-3,355,948	c 14	N71-21007	US-PATENT-3,384,075	c 05	N71-22896	US-PATENT-3,417,321	c 09	N71-23316
US-PATENT-3,356,320	c 05	N71-20718	US-PATENT-3,384,111	c 15	N71-22706	US-PATENT-3,417,332	c 07	N71-23405
US-PATENT-3,356,549	c 15	N71-21404	US-PATENT-3,384,324	c 33	N71-22782	US-PATENT-3,417,399	c 30	N71-23723
US-PATENT-3,356,885	c 25	N71-20747	US-PATENT-3,384,820	c 09	N71-23021	US-PATENT-3,417,400	c 07	N71-28809
US-PATENT-3,356,917	c 33	N79-21285	US-PATENT-3,384,895	c 07	N71-22984	US-PATENT-3,419,329	c 14	N71-23268
US-PATENT-3,357,024	c 12	N71-20815	US-PATENT-3,385,036	c 15	N71-22721	US-PATENT-3,419,363	c 18	N71-23710
US-PATENT-3,357,093	c 15	N71-21078	US-PATENT-3,386,337	c 15	N71-22799	US-PATENT-3,419,384	c 17	N73-28573
US-PATENT-3,357,237	c 33	N71-21588	US-PATENT-3,386,685	c 31	N71-22968	US-PATENT-3,419,433	c 03	N71-23187
US-PATENT-3,357,862	c 03	N71-20904	US-PATENT-3,386,686	c 31	N71-22969	US-PATENT-3,419,531	c 27	N79-21191
US-PATENT-3,358,264	c 09	N71-20851	US-PATENT-3,387,149	c 14	N71-22983	US-PATENT-3,419,537	c 06	N71-23500
US-PATENT-3,359,046	c 15	N71-20739	US-PATENT-3,387,218	c 37	N78-17386	US-PATENT-3,419,827	c 09	N71-23548
US-PATENT-3,359,132	c 09	N71-20705	US-PATENT-3,388,258	c 14	N71-22996	US-PATENT-3,419,964	c 14	N69-21363
US-PATENT-3,359,409	c 07	N71-21476	US-PATENT-3,388,387	c 10	N71-23033	US-PATENT-3,419,982	c 14	N71-23401
US-PATENT-3,359,435	c 15	N71-21311	US-PATENT-3,388,590	c 14	N71-23087	US-PATENT-3,420,069	c 15	N69-21485
US-PATENT-3,359,555	c 09	N71-20884	US-PATENT-3,389,017	c 15	N71-23022	US-PATENT-3,420,223	c 05	N69-21925
US-PATENT-3,359,588	c 54	N78-17680	US-PATENT-3,389,260	c 14	N71-23269	US-PATENT-3,420,225	c 05	N69-21473
US-PATENT-3,359,819	c 15	N71-21744	US-PATENT-3,389,346	c 10	N71-28859	US-PATENT-3,420,253	c 12	N69-21466
US-PATENT-3,359,855	c 23	N71-21882	US-PATENT-3,389,877	c 15	N71-28936	US-PATENT-3,420,338	c 15	N71-26243
US-PATENT-3,360,798	c 09	N71-20658	US-PATENT-3,390,017	c 03	N71-23336	US-PATENT-3,420,471	c 05	N69-21380
US-PATENT-3,360,864	c 14	N71-24693	US-PATENT-3,390,020	c 26	N71-23654	US-PATENT-3,420,704	c 15	N69-21460
US-PATENT-3,360,972	c 15	N71-24833	US-PATENT-3,390,023	c 26	N75-29236	US-PATENT-3,420,945	c 09	N69-21542
US-PATENT-3,360,980	c 14	N71-20741	US-PATENT-3,390,282	c 09	N71-23311	US-PATENT-3,420,978	c 15	N69-21471
US-PATENT-3,360,988	c 09	N71-20816	US-PATENT-3,390,378	c 08	N71-23295	US-PATENT-3,421,004	c 14	N71-19588
US-PATENT-3,361,045	c 15	N71-21060	US-PATENT-3,390,528	c 20	N79-21124	US-PATENT-3,421,053	c 15	N69-21472
US-PATENT-3,361,067	c 26	N71-21824	US-PATENT-3,391,080	c 15	N71-24046	US-PATENT-3,421,058	c 14	N69-23191
US-PATENT-3,361,400	c 15	N71-20813	US-PATENT-3,392,403	c 23	N71-23976	US-PATENT-3,421,105	c 09	N69-21543

US-PATENT-3,421,134	c 09	N69-21470	#	US-PATENT-3,437,935	c 09	N69-24324	#	US-PATENT-3,465,569	c 14	N71-17659	*
US-PATENT-3,421,331	c 15	N69-23190	#	US-PATENT-3,437,959	c 07	N69-24323	#	US-PATENT-3,465,584	c 14	N71-23726	*
US-PATENT-3,421,383	c 11	N69-21540	#	US-PATENT-3,438,044	c 07	N69-27460	#	US-PATENT-3,465,838	c 11	N71-18578	*
US-PATENT-3,421,506	c 05	N69-23192	#	US-PATENT-3,438,263	c 14	N71-20435	#	US-PATENT-3,465,886	c 31	N71-20396	*
US-PATENT-3,421,541	c 15	N69-21924	#	US-PATENT-3,439,886	c 31	N69-27499	#	US-PATENT-3,466,052	c 15	N71-19570	*
US-PATENT-3,421,549	c 03	N69-21469	#	US-PATENT-3,440,419	c 14	N73-28491	#	US-PATENT-3,466,085	c 05	N71-12343	#
US-PATENT-3,421,591	c 14	N69-21923	#	US-PATENT-3,442,674	c 25	N62-29370	#	US-PATENT-3,466,198	c 03	N71-19545	*
US-PATENT-3,421,700	c 15	N69-23185	#	US-PATENT-3,443,128	c 03	N69-39890	#	US-PATENT-3,466,243	c 15	N71-23810	*
US-PATENT-3,421,768	c 15	N69-21362	#	US-PATENT-3,443,208	c 14	N71-20428	#	US-PATENT-3,466,418	c 15	N71-18613	#
US-PATENT-3,421,884	c 17	N71-23046	#	US-PATENT-3,443,384	c 28	N71-24321	*	US-PATENT-3,466,424	c 15	N71-20395	*
US-PATENT-3,421,948	c 03	N69-21337	#	US-PATENT-3,443,390	c 11	N71-24964	*	US-PATENT-3,466,459	c 09	N71-26000	*
US-PATENT-3,422,213	c 03	N69-21539	#	US-PATENT-3,443,412	c 15	N71-23811	*	US-PATENT-3,466,484	c 14	N71-18482	*
US-PATENT-3,422,278	c 09	N69-21468	#	US-PATENT-3,443,416	c 06	N69-39938	#	US-PATENT-3,466,560	c 09	N71-19466	*
US-PATENT-3,422,291	c 25	N69-21929	#	US-PATENT-3,443,472	c 15	N71-23254	*	US-PATENT-3,466,570	c 10	N71-25590	*
US-PATENT-3,422,324	c 14	N69-21541	#	US-PATENT-3,443,583	c 14	N71-18825	*	US-PATENT-3,467,377	c 05	N71-23317	*
US-PATENT-3,422,352	c 14	N71-19431	*	US-PATENT-3,443,584	c 32	N71-16106	*	US-PATENT-3,468,303	c 09	N71-26002	*
US-PATENT-3,422,354	c 09	N69-21926	#	US-PATENT-3,443,732	c 15	N71-15607	#	US-PATENT-3,468,548	c 15	N71-26294	*
US-PATENT-3,422,390	c 09	N69-21927	#	US-PATENT-3,443,773	c 31	N71-23912	*	US-PATENT-3,468,809	c 16	N71-24170	*
US-PATENT-3,422,403	c 08	N69-21928	#	US-PATENT-3,443,779	c 01	N69-39981	#	US-PATENT-3,468,727	c 14	N71-25892	*
US-PATENT-3,422,440	c 09	N69-21487	*	US-PATENT-3,444,051	c 05	N71-11207	*	US-PATENT-3,468,765	c 17	N71-25903	*
US-PATENT-3,423,179	c 15	N69-21922	#	US-PATENT-3,444,127	c 08	N71-11237	*	US-PATENT-3,469,068	c 15	N71-23815	*
US-PATENT-3,423,290	c 06	N71-17705	*	US-PATENT-3,444,375	c 14	N71-15599	#	US-PATENT-3,469,089	c 15	N71-23798	#
US-PATENT-3,423,579	c 09	N71-19480	*	US-PATENT-3,444,380	c 07	N69-39980	#	US-PATENT-3,469,087	c 16	N71-25914	*
US-PATENT-3,423,608	c 09	N69-21313	#	US-PATENT-3,448,075	c 14	N73-30394	#	US-PATENT-3,469,143	c 33	N75-29318	#
US-PATENT-3,423,827	c 33	N78-17293	#	US-PATENT-3,448,387	c 15	N69-39935	#	US-PATENT-3,469,289	c 15	N71-25975	*
US-PATENT-3,424,968	c 10	N71-20448	*	US-PATENT-3,448,558	c 16	N71-24074	*	US-PATENT-3,469,375	c 14	N71-18483	*
US-PATENT-3,425,131	c 15	N71-19489	*	US-PATENT-3,448,642	c 18	N69-39895	#	US-PATENT-3,469,436	c 15	N71-23817	*
US-PATENT-3,425,268	c 14	N69-39975	#	US-PATENT-3,448,676	c 03	N71-11050	#	US-PATENT-3,469,437	c 14	N71-24234	*
US-PATENT-3,425,272	c 14	N71-20439	*	US-PATENT-3,448,960	c 14	N69-39882	#	US-PATENT-3,469,734	c 11	N71-17600	*
US-PATENT-3,425,276	c 14	N69-24257	#	US-PATENT-3,448,992	c 09	N69-39987	#	US-PATENT-3,470,043	c 15	N71-24047	*
US-PATENT-3,425,488	c 05	N71-24147	*	US-PATENT-3,448,997	c 03	N69-39898	#	US-PATENT-3,470,304	c 14	N71-23267	*
US-PATENT-3,425,487	c 05	N71-19439	*	US-PATENT-3,448,998	c 09	N69-39929	#	US-PATENT-3,470,313	c 07	N71-26579	*
US-PATENT-3,425,885	c 15	N69-24322	#	US-PATENT-3,447,003	c 09	N71-20448	*	US-PATENT-3,470,318	c 07	N71-24612	*
US-PATENT-3,426,219	c 09	N69-24317	#	US-PATENT-3,447,015	c 06	N69-39889	#	US-PATENT-3,470,342	c 09	N71-19610	*
US-PATENT-3,426,230	c 15	N69-24319	#	US-PATENT-3,447,071	c 25	N69-39884	#	US-PATENT-3,470,443	c 03	N71-23239	*
US-PATENT-3,426,263	c 03	N71-19438	*	US-PATENT-3,447,154	c 21	N71-11766	*	US-PATENT-3,470,446	c 09	N71-23188	*
US-PATENT-3,426,272	c 14	N69-39785	#	US-PATENT-3,447,155	c 09	N71-18598	#	US-PATENT-3,470,466	c 14	N71-23699	*
US-PATENT-3,426,746	c 05	N71-26293	#	US-PATENT-3,447,233	c 15	N69-39788	#	US-PATENT-3,470,475	c 10	N71-19467	*
US-PATENT-3,426,791	c 15	N71-19569	*	US-PATENT-3,447,774	c 15	N71-19485	#	US-PATENT-3,470,489	c 09	N71-23588	*
US-PATENT-3,427,047	c 15	N69-27490	#	US-PATENT-3,447,850	c 09	N71-18600	*	US-PATENT-3,470,495	c 10	N71-23669	*
US-PATENT-3,427,089	c 23	N69-24332	#	US-PATENT-3,448,273	c 07	N69-39736	#	US-PATENT-3,470,496	c 09	N71-19470	*
US-PATENT-3,427,093	c 09	N71-19479	*	US-PATENT-3,448,290	c 10	N71-23315	*	US-PATENT-3,471,856	c 30	N71-16090	*
US-PATENT-3,427,097	c 11	N69-24321	#	US-PATENT-3,448,341	c 09	N71-12526	#	US-PATENT-3,471,858	c 07	N71-12391	*
US-PATENT-3,427,205	c 15	N69-24320	#	US-PATENT-3,448,346	c 15	N71-18701	*	US-PATENT-3,472,019	c 10	N71-26326	*
US-PATENT-3,427,435	c 17	N69-25147	*	US-PATENT-3,450,842	c 07	N69-39978	#	US-PATENT-3,472,059	c 14	N71-23755	*
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US-PATENT-3,608,409	c 14	N72-16263 *	#	US-PATENT-3,626,298	c 07	N72-20140 *	#	US-PATENT-3,662,604	c 13	N72-25323 *	#
US-PATENT-3,608,844	c 15	N72-18477 *	#	US-PATENT-3,626,308	c 10	N72-20223 *	#	US-PATENT-3,662,661	c 31	N72-25842 *	#
US-PATENT-3,609,230	c 09	N72-17156 *	#	US-PATENT-3,626,828	c 14	N72-20380 *	#	US-PATENT-3,662,744	c 05	N72-25122 *	#
US-PATENT-3,609,271	c 09	N72-22204 *	#	US-PATENT-3,628,113	c 37	N77-27400 *	#	US-PATENT-3,662,973	c 21	N72-25595 *	#
US-PATENT-3,609,327	c 08	N72-22167 *	#	US-PATENT-3,629,068	c 22	N72-20597 *	#	US-PATENT-3,663,346	c 18	N72-25541 *	#
US-PATENT-3,609,353	c 14	N72-17328 *	#	US-PATENT-3,629,161	c 18	N72-22567 *	#	US-PATENT-3,663,347	c 18	N72-25540 *	#
US-PATENT-3,609,364	c 10	N72-17173 *	#	US-PATENT-3,630,276	c 33	N72-20915 *	#	US-PATENT-3,663,464	c 06	N72-25147 *	#
US-PATENT-3,609,387	c 09	N72-17157 *	#	US-PATENT-3,630,304	c 11	N72-20244 *	#	US-PATENT-3,663,521	c 06	N72-25152 *	#
US-PATENT-3,609,535	c 14	N72-17325 *	#	US-PATENT-3,630,627	c 03	N72-20033 *	#	US-PATENT-3,663,753	c 14	N72-25414 *	#
US-PATENT-3,609,567	c 10	N72-17171 *	#	US-PATENT-3,631,339	c 08	N72-20177 *	#	US-PATENT-3,663,828	c 09	N72-25262 *	#
US-PATENT-3,609,740	c 05	N72-16015 *	#	US-PATENT-3,631,351	c 10	N72-20224 *	#	US-PATENT-3,663,839	c 09	N72-25260 *	#
US-PATENT-3,610,365	c 15	N72-17451 *	#	US-PATENT-3,631,382	c 09	N72-20200 *	#	US-PATENT-3,663,843	c 09	N72-25255 *	#
US-PATENT-3,611,274	c 15	N72-17455 *	#	US-PATENT-3,631,737	c 15	N72-28495 *	#	US-PATENT-3,663,885	c 09	N72-25257 *	#
US-PATENT-3,611,330	c 23	N72-17747 *	#	US-PATENT-3,632,081	c 15	N72-20442 *	#	US-PATENT-3,663,886	c 09	N72-25258 *	#
US-PATENT-3,611,798	c 14	N72-22437 *	#	US-PATENT-3,632,140	c 15	N72-20445 *	#	US-PATENT-3,663,929	c 09	N72-25256 *	#
US-PATENT-3,611,801	c 14	N72-17329 *	#	US-PATENT-3,632,242	c 15	N72-20448 *	#	US-PATENT-3,663,938	c 03	N72-25020 *	#
US-PATENT-3,612,030	c 48	N74-23069 *	#	US-PATENT-3,632,923	c 09	N72-20199 *	#	US-PATENT-3,663,940	c 09	N72-25252 *	#
US-PATENT-3,612,391	c 11	N72-22245 *	#	US-PATENT-3,632,986	c 08	N72-20176 *	#	US-PATENT-3,663,941	c 09	N72-25253 *	#
US-PATENT-3,612,442	c 28	N72-22769 *	#	US-PATENT-3,633,048	c 10	N72-20221 *	#	US-PATENT-3,663,944	c 09	N72-25254 *	#
US-PATENT-3,612,645	c 14	N72-22441 *	#	US-PATENT-3,633,110	c 07	N72-20141 *	#	US-PATENT-3,664,185	c 15	N72-26371 *	#
US-PATENT-3,612,743	c 09	N72-22198 *	#	US-PATENT-3,634,383	c 27	N73-22710 *	#	US-PATENT-3,664,874	c 09	N72-25259 *	#
US-PATENT-3,612,895	c 09	N72-22197 *	#	US-PATENT-3,635,216	c 05	N72-20096 *	#	US-PATENT-3,665,064	c 05	N72-25120 *	#
US-PATENT-3,613,110	c 08	N72-21199 *	#	US-PATENT-3,635,537	c 33	N80-14330 *	#	US-PATENT-3,665,307	c 15	N72-25457 *	#
US-PATENT-3,613,111	c 08	N72-21200 *	#	US-PATENT-3,635,765	c 03	N72-20034 *	#	US-PATENT-3,665,313	c 07	N72-25173 *	#
US-PATENT-3,613,370	c 28	N72-22770 *	#	US-PATENT-3,636,539	c 03	N72-20031 *	#	US-PATENT-3,665,417	c 07	N72-25172 *	#
US-PATENT-3,613,454	c 35	N77-27368 *	#	US-PATENT-3,636,564	c 05	N72-22092 *	#	US-PATENT-3,665,487	c 14	N72-26437 *	#
US-PATENT-3,613,457	c 15	N72-22482 *	#	US-PATENT-3,636,623	c 15	N72-20444 *	#	US-PATENT-3,665,481	c 07	N72-25174 *	#
US-PATENT-3,613,784	c 12	N72-21310 *	#	US-PATENT-3,636,711	c 28	N72-20758 *	#	US-PATENT-3,665,589	c 09	N72-25261 *	#
US-PATENT-3,614,228	c 14	N72-21409 *	#	US-PATENT-3,636,966	c 05	N72-20097 *	#	US-PATENT-3,665,669	c 15	N72-25454 *	#
US-PATENT-3,614,327	c 08	N72-22162 *	#	US-PATENT-3,637,051	c 15	N72-20443 *	#	US-PATENT-3,665,670	c 11	N72-25267 *	#
US-PATENT-3,614,343	c 07	N72-21119 *	#	US-PATENT-3,637,170	c 21	N72-21624 *	#	US-PATENT-3,665,750	c 33	N72-25913 *	#
US-PATENT-3,614,431	c 14	N72-21408 *	#	US-PATENT-3,637,312	c 14	N72-20379 *	#	US-PATENT-3,665,751	c 32	N72-25877 *	#
US-PATENT-3,614,475	c 10	N72-16172 *	#	US-PATENT-3,637,842	c 06	N72-20121 *	#	US-PATENT-3,665,758	c 11	N72-25288 *	#
US-PATENT-3,614,557	c 26	N72-21701 *	#	US-PATENT-3,638,002	c 08	N72-21197 *	#	US-PATENT-3,666,051	c 15	N72-25453 *	#
US-PATENT-3,614,587	c 09	N72-22196 *	#	US-PATENT-3,638,066	c 10	N72-20225 *	#	US-PATENT-3,666,120	c 03	N72-25021 *	#
US-PATENT-3,614,648	c 09	N72-21247 *	#	US-PATENT-3,638,103	c 09	N72-21243 *	#	US-PATENT-3,666,566	c 03	N72-26031 *	#
US-PATENT-3,614,772	c 08	N72-22163 *	#	US-PATENT-3,638,114	c 10	N72-20222 *	#	US-PATENT-3,666,631	c 14	N72-25413 *	#
US-PATENT-3,614,898	c 15	N72-21462 *	#	US-PATENT-3,638,224	c 09	N72-21244 *	#	US-PATENT-3,666,718	c 06	N72-25121 *	#
US-PATENT-3,614,899	c 09	N72-22195 *	#	US-PATENT-3,639,250	c 14	N72-22443 *	#	US-PATENT-3,666,741	c 06	N72-25150 *	#
US-PATENT-3,615,021	c 15	N72-22483 *	#	US-PATENT-3,639,510	c 06	N72-22107 *	#	US-PATENT-3,666,942	c 06	N72-25146 *	#
US-PATENT-3,615,241	c 15	N72-21465 *	#	US-PATENT-3,639,809	c 15	N72-22486 *	#	US-PATENT-3,667,010	c 26	N72-25679 *	#
US-PATENT-3,615,485	c 06	N72-21094 *	#	US-PATENT-3,639,835	c 14	N72-22442 *	#	US-PATENT-3,667,039	c 26	N72-25680 *	#
US-PATENT-3,615,853	c 03	N72-22042 *	#	US-PATENT-3,640,256	c 28	N72-22772 *	#	US-PATENT-3,667,044	c 07	N72-25171 *	#
US-PATENT-3,616,338	c 15	N72-21466 *	#	US-PATENT-3,641,470	c 35	N78-17359 *	#	US-PATENT-3,668,956	c 15	N72-27485 *	#
US-PATENT-3,616,528	c 03	N72-22041 *	#	US-PATENT-3,647,276	c 14	N72-22444 *	#	US-PATENT-3,668,956	c 05	N72-27103 *	#
US-PATENT-3,617,804	c 25	N72-24753 *	#	US-PATENT-3,647,529	c 27	N74-23125 *	#	US-PATENT-3,669,393	c 15	N72-27484 *	#
US-PATENT-3,618,896	c 15	N72-22487 *	#	US-PATENT-3,647,924	c 11	N72-23215 *	#	US-PATENT-3,670,087	c 23	N72-27728 *	#
US-PATENT-3,619,924	c 11	N72-22247 *	#	US-PATENT-3,648,043	c 09	N72-23173 *	#	US-PATENT-3,670,168	c 14	N72-27409 *	#
US-PATENT-3,620,018	c 28	N72-22771 *	#	US-PATENT-3,648,083	c 12	N72-25292 *	#	US-PATENT-3,670,202	c 14	N72-27411 *	#
US-PATENT-3,620,069	c 14	N72-22440 *	#	US-PATENT-3,648,152	c 03	N72-23048 *	#	US-PATENT-3,670,241	c 14	N72-27408 *	#
US-PATENT-3,620,076	c 11	N72-22246 *	#	US-PATENT-3,648,209	c 09	N72-27226 *	#	US-PATENT-3,670,290	c 09	N72-28225 *	#
US-PATENT-3,620,083	c 14	N72-22438 *	#	US-PATENT-3,648,250	c 09	N72-25248 *	#	US-PATENT-3,670,559	c 33	N72-27959 *	#
US-PATENT-3,620,095	c 15	N72-21463 *	#	US-PATENT-3,648,256	c 08	N72-25207 *	#	US-PATENT-3,670,563	c 14	N72-27412 *	#
US-PATENT-3,620,585	c 15	N72-22490 *	#	US-PATENT-3,648,275	c 08	N72-25206 *	#	US-PATENT-3,670,564	c 11	N72-27262 *	#
US-PATENT-3,620,595	c 14	N72-22445 *	#	US-PATENT-3,648,481	c 28	N72-23810 *	#	US-PATENT-3,670,890	c 05	N72-27102 *	#
US-PATENT-3,620,606	c 23	N72-22673 *	#	US-PATENT-3,648,516	c 35	N74-22095 *	#	US-PATENT-3,671,105	c 26	N72-27784 *	#
US-PATENT-3,620,718	c 17	N72-22535 *	#	US-PATENT-3,649,242	c 15	N72-25448 *	#	US-PATENT-3,671,329	c 14	N72-27410 *	#
US-PATENT-3,620,784	c 18	N72-23581 *	#	US-PATENT-3,649,353	c 26	N72-26762 *	#	US-PATENT-3,671,487	c 06	N72-27144 *	#
US-PATENT-3,620,791	c 18	N72-22586 *	#	US-PATENT-3,649,356	c 15	N72-25447 *	#	US-PATENT-3,671,798	c 10	N72-27246 *	#
US-PATENT-3,620,846	c 31	N72-22874 *	#	US-PATENT-3,649,462	c 11	N72-25284 *	#	US-PATENT-3,672,999	c 03	N72-27053 *	#
US-PATENT-3,621,130	c 08	N72-22164 *	#	US-PATENT-3,649,907	c 09	N72-23172 *	#	US-PATENT-3,673,424	c 09	N72-27227 *	#
US-PATENT-3,621,193	c 15	N72-23497 *	#	US-PATENT-3,649,921	c 05	N72-23085 *	#	US-PATENT-3,673,440	c 09	N72-27228 *	#
US-PATENT-3,621,194	c 15	N72-22491 *	#	US-PATENT-3,649,935	c 07	N72-25170 *	#	US-PATENT-3,675,332	c 14	N72-28436 *	#
US-PATENT-3,621,228	c 08	N72-22165 *	#	US-PATENT-3,650,095	c 14	N72-23457 *	#	US-PATENT-3,675,376	c 15	N72-28496 *	#
US-PATENT-3,621,277	c 10	N72-22236 *	#	US-PATENT-3,650,474	c 28	N72-23809 *	#	US-PATENT-3,675,712	c 03	N72-28025 *	#
US-PATENT-3,621,285	c 09	N72-22200 *	#	US-PATENT-3,651,008	c 27	N81-24258 *	#	US-PATENT-3,675,910	c 17	N72-28535 *	#
US-PATENT-3,621,287	c 09	N72-22201 *	#	US-PATENT-3,653,052	c 09	N72-25247 *	#	US-PATENT-3,675,935	c 15	N72-29488 *	#
US-PATENT-3,621,290	c 09	N72-22202 *	#	US-PATENT-3,653,882	c 18	N72-25539 *	#	US-PATENT-3,676,084	c 17	N72-28536 *	#
US-PATENT-3,621,294	c 09	N72-23171 *	#	US-PATENT-3,653,970	c 03	N72-24037 *	#	US-PATENT-3,676,874	c 14	N72-29484 *	#
US-PATENT-3,621,330	c 33	N77-21316 *	#	US-PATENT-3,654,036	c 03	N72-25019 *	#	US-PATENT-3,676,754	c 26	N72-28761 *	#
US-PATENT-3,621,362	c 09	N72-22203 *	#	US-PATENT-3,655,814	c 27	N81-15104 *	#	US-PATENT-3,676,772	c 10	N72-28240 *	#
US-PATENT-3,621,372	c 09	N72-25249 *	#	US-PATENT-3,656,313	c 23	N72-25619 *	#	US-PATENT-3,676,787	c 16	N72-28521 *	#
US-PATENT-3,621,408	c 09	N72-33204 *	#	US-PATENT-3,656,317	c 33	N72-25911 *	#	US-PATENT-3,676,809	c 09	N72-29172 *	#
US-PATENT-3,621,407	c 09	N72-21245 *	#	US-PATENT-3,656,352	c 14	N72-25411 *	#	US-PATENT-3,678,191	c 10	N72-31273 *	#
US-PATENT-3,621,565	c 09	N72-22199 *	#	US-PATENT-3,656,781	c 15	N72-25450 *	#	US-PATENT-3,678,654	c 06	N72-31140 *	#
US-PATENT-3,623,030	c 08	N72-21198 *	#	US-PATENT-3,657,190	c 23	N82-29358 *	#	US-PATENT-3,678,685	c 21	N72-31837 *	#
US-PATENT-3,623,094	c 10	N72-22235 *	#	US-PATENT-3,657,549	c 14	N72-25409 *	#	US-PATENT-3,678,771	c 37	N74-23070 *	#
US-PATENT-3,623,107	c 07	N72-21117 *	#	US-PATENT-3,657,644	c 14	N72-24477 *	#	US-PATENT-3,679,360	c 04	N72-33072 *	#
US-PATENT-3,623,114	c 07	N72-22127 *	#	US-PATENT-3,657,828	c 14	N72-25410 *	#	US-PATENT-3,679,899	c 06	N72-31141 *	#
US-PATENT-3,623,359	c 35	N77-27387 *	#	US-PATENT-3,658,295	c 15	N72-25451 *	#	US-PATENT-3			



US-PATENT-3,693,346	c 15	N72-33477 *	US-PATENT-3,714,526	c 09	N73-19235 *	US-PATENT-3,745,475	c 14	N73-30386 *
US-PATENT-3,693,418	c 14	N72-33377 *	US-PATENT-3,714,588	c 09	N73-20231 *	US-PATENT-3,745,739	c 15	N73-27405 *
US-PATENT-3,694,041	c 15	N72-33476 *	US-PATENT-3,714,624	c 14	N73-20474 *	US-PATENT-3,745,816	c 33	N73-27796 *
US-PATENT-3,694,094	c 14	N72-32452 *	US-PATENT-3,714,645	c 08	N73-20217 *	US-PATENT-3,746,998	c 07	N73-30113 *
US-PATENT-3,694,313	c 24	N72-33681 *	US-PATENT-3,714,821	c 14	N73-20476 *	US-PATENT-3,747,111	c 07	N73-28013 *
US-PATENT-3,694,581	c 08	N72-33172 *	US-PATENT-3,714,833	c 11	N73-20267 *	US-PATENT-3,748,722	c 15	N73-33383 *
US-PATENT-3,694,655	c 25	N72-33696 *	US-PATENT-3,715,092	c 03	N73-20039 *	US-PATENT-3,748,853	c 23	N73-30665 *
US-PATENT-3,694,700	c 09	N72-33205 *	US-PATENT-3,715,152	c 23	N73-20741 *	US-PATENT-3,748,905	c 14	N73-30395 *
US-PATENT-3,694,753	c 07	N72-33146 *	US-PATENT-3,715,590	c 14	N73-20477 *	US-PATENT-3,749,123	c 15	N73-30459 *
US-PATENT-3,694,771	c 09	N73-15235 *	US-PATENT-3,715,600	c 03	N73-20040 *	US-PATENT-3,749,156	c 31	N73-30829 *
US-PATENT-3,695,101	c 11	N73-12264 *	US-PATENT-3,715,660	c 07	N73-20175 *	US-PATENT-3,749,205	c 15	N73-30460 *
US-PATENT-3,696,418	c 09	N73-12211 *	US-PATENT-3,715,663	c 07	N73-20174 *	US-PATENT-3,749,332	c 31	N73-32750 *
US-PATENT-3,696,833	c 11	N73-12265 *	US-PATENT-3,715,693	c 09	N73-20232 *	US-PATENT-3,749,362	c 15	N73-30457 *
US-PATENT-3,697,021	c 15	N73-12486 *	US-PATENT-3,715,723	c 07	N73-20176 *	US-PATENT-3,749,811	c 07	N73-30115 *
US-PATENT-3,697,630	c 15	N73-12489 *	US-PATENT-3,715,915	c 32	N73-20740 *	US-PATENT-3,749,916	c 14	N73-30389 *
US-PATENT-3,697,705	c 35	N77-21392 *	US-PATENT-3,718,863	c 10	N73-20254 *	US-PATENT-3,750,011	c 14	N73-30388 *
US-PATENT-3,697,733	c 08	N73-12176 *	US-PATENT-3,719,891	c 07	N73-25160 *	US-PATENT-3,750,035	c 33	N77-13315 *
US-PATENT-3,697,950	c 08	N73-12177 *	US-PATENT-3,720,075	c 33	N73-25952 *	US-PATENT-3,750,067	c 09	N73-30185 *
US-PATENT-3,697,968	c 21	N73-13644 *	US-PATENT-3,720,208	c 05	N73-25125 *	US-PATENT-3,750,131	c 10	N73-30205 *
US-PATENT-3,698,385	c 05	N73-13114 *	US-PATENT-3,723,745	c 14	N73-25462 *	US-PATENT-3,750,168	c 21	N73-30641 *
US-PATENT-3,698,412	c 05	N73-13418 *	US-PATENT-3,728,861	c 28	N73-24783 *	US-PATENT-3,750,269	c 05	N73-30078 *
US-PATENT-3,698,659	c 11	N73-13257 *	US-PATENT-3,729,068	c 15	N73-25512 *	US-PATENT-3,751,123	c 15	N73-30458 *
US-PATENT-3,698,667	c 02	N73-13008 *	US-PATENT-3,729,129	c 08	N73-25206 *	US-PATENT-3,751,727	c 05	N73-32012 *
US-PATENT-3,698,848	c 15	N73-13484 *	US-PATENT-3,729,260	c 14	N73-25463 *	US-PATENT-3,751,733	c 05	N73-32013 *
US-PATENT-3,699,511	c 21	N73-13643 *	US-PATENT-3,729,343	c 14	N73-24472 *	US-PATENT-3,751,913	c 06	N73-30097 *
US-PATENT-3,699,645	c 14	N73-13417 *	US-PATENT-3,729,676	c 14	N73-24473 *	US-PATENT-3,751,980	c 14	N73-32326 *
US-PATENT-3,699,799	c 15	N73-13463 *	US-PATENT-3,729,736	c 07	N73-25161 *	US-PATENT-3,752,556	c 35	N74-17153 *
US-PATENT-3,699,807	c 14	N73-13416 *	US-PATENT-3,729,743	c 07	N73-24176 *	US-PATENT-3,752,559	c 14	N73-30393 *
US-PATENT-3,699,811	c 14	N73-13415 *	US-PATENT-3,729,935	c 28	N73-24784 *	US-PATENT-3,752,564	c 23	N73-30666 *
US-PATENT-3,700,005	c 15	N73-13462 *	US-PATENT-3,730,287	c 11	N73-26238 *	US-PATENT-3,752,665	c 18	N73-32437 *
US-PATENT-3,700,192	c 31	N73-13898 *	US-PATENT-3,730,891	c 18	N73-26572 *	US-PATENT-3,752,847	c 06	N73-30098 *
US-PATENT-3,700,193	c 30	N73-12884 *	US-PATENT-3,731,528	c 12	N73-25262 *	US-PATENT-3,752,886	c 14	N73-30392 *
US-PATENT-3,700,291	c 15	N73-12488 *	US-PATENT-3,731,531	c 14	N73-25480 *	US-PATENT-3,752,993	c 21	N73-30640 *
US-PATENT-3,700,334	c 14	N73-12446 *	US-PATENT-3,732,040	c 15	N73-24513 *	US-PATENT-3,752,996	c 81	N74-13130 *
US-PATENT-3,700,503	c 14	N73-12447 *	US-PATENT-3,732,158	c 17	N73-24569 *	US-PATENT-3,753,148	c 09	N73-32111 *
US-PATENT-3,700,538	c 18	N73-12604 *	US-PATENT-3,732,397	c 33	N74-14935 *	US-PATENT-3,754,236	c 08	N73-32081 *
US-PATENT-3,700,575	c 15	N73-12487 *	US-PATENT-3,732,405	c 10	N73-25240 *	US-PATENT-3,754,263	c 09	N73-32110 *
US-PATENT-3,700,603	c 14	N73-14428 *	US-PATENT-3,732,409	c 08	N73-26175 *	US-PATENT-3,754,676	c 15	N73-32360 *
US-PATENT-3,700,812	c 10	N73-12244 *	US-PATENT-3,732,567	c 14	N73-25461 *	US-PATENT-3,755,265	c 06	N73-33076 *
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US-PATENT-3,795,134	c 09	N74-19528 *	US-PATENT-3,819,550	c 27	N74-27037 *	US-PATENT-3,864,239	c 37	N75-19684 *
US-PATENT-3,795,448	c 72	N74-19310 *	US-PATENT-3,820,095	c 33	N74-27862 *	US-PATENT-3,864,542	c 37	N75-19683 *
US-PATENT-3,795,840	c 33	N74-17929 *	US-PATENT-3,820,286	c 37	N74-27905 *	US-PATENT-3,864,797	c 20	N75-18310 *
US-PATENT-3,795,858	c 35	N74-18090 *	US-PATENT-3,820,388	c 35	N74-27865 *	US-PATENT-3,864,853	c 35	N75-19615 *
US-PATENT-3,795,862	c 33	N74-17930 *	US-PATENT-3,820,529	c 52	N74-27864 *	US-PATENT-3,864,960	c 35	N75-19612 *
US-PATENT-3,795,900	c 35	N74-17885 *	US-PATENT-3,820,630	c 07	N74-27490 *	US-PATENT-3,865,442	c 37	N75-18574 *
US-PATENT-3,795,910	c 44	N74-19870 *	US-PATENT-3,820,741	c 37	N74-27903 *	US-PATENT-3,865,975	c 36	N75-19652 *
US-PATENT-3,796,473	c 37	N74-20063 *	US-PATENT-3,820,818	c 07	N74-28226 *	US-PATENT-3,866,022	c 33	N75-19519 *
US-PATENT-3,796,592	c 24	N74-19769 *	US-PATENT-3,821,102	c 34	N74-27744 *	US-PATENT-3,866,114	c 33	N75-18477 *
US-PATENT-3,797,098	c 37	N74-21057 *	US-PATENT-3,821,462	c 33	N74-27683 *	US-PATENT-3,866,128	c 33	N75-19515 *
US-PATENT-3,797,919	c 70	N74-21300 *	US-PATENT-3,821,546	c 33	N74-27682 *	US-PATENT-3,866,210	c 33	N75-19517 *
US-PATENT-3,798,741	c 31	N74-21059 *	US-PATENT-3,821,556	c 74	N74-27686 *	US-PATENT-3,866,233	c 33	N75-19516 *
US-PATENT-3,798,748	c 37	N74-21055 *	US-PATENT-3,824,707	c 09	N74-30597 *	US-PATENT-3,866,863	c 18	N75-19329 *
US-PATENT-3,798,778	c 19	N74-21015 *	US-PATENT-3,825,760	c 19	N74-29410 *	US-PATENT-3,867,677	c 33	N75-19524 *
US-PATENT-3,798,896	c 37	N74-21060 *	US-PATENT-3,826,448	c 08	N74-30421 *	US-PATENT-3,868,591	c 36	N75-19655 *
US-PATENT-3,799,149	c 52	N74-20728 *	US-PATENT-3,826,726	c 25	N74-30502 *	US-PATENT-3,868,830	c 77	N75-20139 *
US-PATENT-3,799,475	c 02	N74-20646 *	US-PATENT-3,826,729	c 20	N74-31269 *	US-PATENT-3,868,856	c 35	N75-19614 *
US-PATENT-3,799,793	c 74	N74-20008 *	US-PATENT-3,826,964	c 33	N74-29556 *	US-PATENT-3,868,151	c 37	N75-19686 *
US-PATENT-3,799,813	c 76	N74-20329 *	US-PATENT-3,827,288	c 71	N74-31148 *	US-PATENT-3,868,160	c 37	N75-19685 *
US-PATENT-3,800,074	c 36	N74-20009 *	US-PATENT-3,827,807	c 89	N74-30886 *	US-PATENT-3,869,210	c 36	N75-19653 *
US-PATENT-3,800,082	c 71	N74-21014 *	US-PATENT-3,828,137	c 32	N74-30524 *	US-PATENT-3,869,212	c 35	N75-19613 *
US-PATENT-3,800,224	c 32	N74-19790 *	US-PATENT-3,828,138	c 32	N74-30523 *	US-PATENT-3,869,597	c 77	N75-20140 *
US-PATENT-3,800,227	c 32	N74-20809 *	US-PATENT-3,828,524	c 34	N74-30608 *	US-PATENT-3,869,615	c 35	N75-19616 *
US-PATENT-3,800,237	c 32	N74-19788 *	US-PATENT-3,829,237	c 07	N74-31270 *	US-PATENT-3,869,624	c 33	N75-18479 *
US-PATENT-3,800,253	c 37	N74-21056 *	US-PATENT-3,829,839	c 60	N78-18800 *	US-PATENT-3,869,659	c 33	N75-19522 *
US-PATENT-3,801,617	c 37	N74-21058 *	US-PATENT-3,830,060	c 44	N74-33379 *	US-PATENT-3,869,667	c 33	N75-19521 *
US-PATENT-3,802,249	c 35	N74-21019 *	US-PATENT-3,830,094	c 35	N74-32879 *	US-PATENT-3,869,676	c 33	N75-19520 *
US-PATENT-3,802,253	c 52	N74-20726 *	US-PATENT-3,830,335	c 07	N74-32418 *	US-PATENT-3,869,680	c 36	N75-19554 *
US-PATENT-3,802,262	c 35	N74-21018 *	US-PATENT-3,830,431	c 07	N74-33218 *	US-PATENT-3,869,779	c 26	N75-19408 *
US-PATENT-3,802,660	c 37	N74-21065 *	US-PATENT-3,830,552	c 37	N74-32921 *	US-PATENT-3,872,395	c 33	N75-19518 *
US-PATENT-3,802,753	c 37	N74-21064 *	US-PATENT-3,830,609	c 31	N74-32920 *	US-PATENT-3,874,240	c 35	N75-25122 *
US-PATENT-3,802,779	c 74	N74-21304 *	US-PATENT-3,830,673	c 28	N74-33209 *	US-PATENT-3,874,635	c 37	N75-25185 *

US-PATENT-3,874,677	c 37	N75-21631 *	US-PATENT-3,914,950	c 31	N76-14284 *	US-PATENT-3,952,976	c 37	N76-22540 *
US-PATENT-3,875,332	c 32	N75-21488 *	US-PATENT-3,914,969	c 37	N76-14481 *	US-PATENT-3,952,980	c 19	N76-22284 *
US-PATENT-3,875,394	c 33	N75-26243 *	US-PATENT-3,914,991	c 35	N76-14430 *	US-PATENT-3,952,988	c 20	N76-22286 *
US-PATENT-3,875,404	c 35	N75-23910 *	US-PATENT-3,914,997	c 35	N76-14429 *	US-PATENT-3,953,038	c 37	N76-22541 *
US-PATENT-3,875,435	c 20	N75-24837 *	US-PATENT-3,915,012	c 54	N76-14804 *	US-PATENT-3,953,343	c 24	N76-22309 *
US-PATENT-3,875,500	c 35	N75-21582 *	US-PATENT-3,915,148	c 44	N76-14602 *	US-PATENT-3,953,646	c 27	N76-22377 *
US-PATENT-3,875,584	c 32	N75-21485 *	US-PATENT-3,915,416	c 15	N76-14158 *	US-PATENT-3,953,674	c 17	N76-22245 *
US-PATENT-3,877,833	c 37	N75-25186 *	US-PATENT-3,915,482	c 37	N76-14460 *	US-PATENT-3,953,734	c 25	N76-22323 *
US-PATENT-3,878,484	c 32	N75-24981 *	US-PATENT-3,915,572	c 38	N76-14447 *	US-PATENT-3,953,792	c 35	N76-22509 *
US-PATENT-3,881,132	c 33	N77-21315 *	US-PATENT-3,916,060	c 27	N76-15310 *	US-PATENT-3,955,034	c 27	N76-23426 *
US-PATENT-3,882,417	c 36	N78-17368 *	US-PATENT-3,916,084	c 33	N76-14371 *	US-PATENT-3,955,841	c 44	N76-29700 *
US-PATENT-3,882,530	c 76	N75-25730 *	US-PATENT-3,916,187	c 35	N76-15431 *	US-PATENT-3,956,032	c 76	N76-25049 *
US-PATENT-3,882,634	c 51	N75-25503 *	US-PATENT-3,916,316	c 32	N76-14321 *	US-PATENT-3,956,050	c 37	N76-24575 *
US-PATENT-3,882,719	c 14	N75-24794 *	US-PATENT-3,916,380	c 60	N76-14818 *	US-PATENT-3,956,233	c 27	N76-24405 *
US-PATENT-3,882,732	c 12	N75-24774 *	US-PATENT-3,916,761	c 75	N76-14931 *	US-PATENT-3,956,833	c 09	N76-24280 *
US-PATENT-3,882,846	c 05	N75-24718 *	US-PATENT-3,919,014	c 24	N76-14203 *	US-PATENT-3,956,919	c 35	N76-24523 *
US-PATENT-3,883,095	c 07	N75-24738 *	US-PATENT-3,919,710	c 33	N76-14372 *	US-PATENT-3,956,932	c 35	N76-24524 *
US-PATENT-3,883,215	c 35	N75-25124 *	US-PATENT-3,920,339	c 27	N76-14264 *	US-PATENT-3,957,030	c 44	N76-23875 *
US-PATENT-3,883,436	c 74	N75-25706 *	US-PATENT-3,920,413	c 44	N76-14595 *	US-PATENT-3,957,037	c 35	N76-24525 *
US-PATENT-3,883,689	c 35	N75-25123 *	US-PATENT-3,920,416	c 44	N76-18842 *	US-PATENT-3,957,044	c 54	N76-24900 *
US-PATENT-3,883,785	c 09	N75-24758 *	US-PATENT-3,922,830	c 37	N76-15457 *	US-PATENT-3,957,104	c 37	N76-23570 *
US-PATENT-3,883,812	c 33	N75-25041 *	US-PATENT-3,923,166	c 37	N76-15480 *	US-PATENT-3,957,875	c 24	N76-24383 *
US-PATENT-3,883,817	c 33	N75-25040 *	US-PATENT-3,924,068	c 32	N76-18249 *	US-PATENT-3,958,188	c 38	N76-24553 *
US-PATENT-3,883,872	c 32	N75-24982 *	US-PATENT-3,924,137	c 72	N76-15660 *	US-PATENT-3,958,238	c 60	N76-23850 *
US-PATENT-3,884,432	c 05	N75-25914 *	US-PATENT-3,924,164	c 33	N76-15373 *	US-PATENT-3,958,553	c 44	N76-24686 *
US-PATENT-3,884,785	c 35	N75-27330 *	US-PATENT-3,924,176	c 35	N76-16390 *	US-PATENT-3,961,897	c 44	N76-28835 *
US-PATENT-3,887,233	c 05	N75-25915 *	US-PATENT-3,924,183	c 33	N76-16331 *	US-PATENT-3,964,306	c 34	N76-27517 *
US-PATENT-3,887,345	c 35	N75-26334 *	US-PATENT-3,924,200	c 35	N76-15436 *	US-PATENT-3,964,319	c 07	N76-27232 *
US-PATENT-3,887,365	c 37	N75-26371 *	US-PATENT-3,924,237	c 32	N76-15330 *	US-PATENT-3,964,813	c 37	N76-27567 *
US-PATENT-3,888,362	c 54	N75-27758 *	US-PATENT-3,924,239	c 35	N76-15435 *	US-PATENT-3,964,902	c 34	N76-27515 *
US-PATENT-3,888,410	c 34	N75-26282 *	US-PATENT-3,924,267	c 35	N76-16391 *	US-PATENT-3,964,928	c 44	N76-27684 *
US-PATENT-3,888,561	c 35	N75-27328 *	US-PATENT-3,924,444	c 35	N76-15432 *	US-PATENT-3,965,096	c 27	N76-32315 *
US-PATENT-3,888,705	c 25	N75-26043 *	US-PATENT-3,925,104	c 35	N76-15434 *	US-PATENT-3,965,354	c 33	N76-27473 *
US-PATENT-3,889,064	c 32	N75-26185 *	US-PATENT-3,925,312	c 23	N76-15268 *	US-PATENT-3,965,475	c 33	N76-27472 *
US-PATENT-3,889,122	c 37	N75-26372 *	US-PATENT-3,926,482	c 37	N76-15461 *	US-PATENT-3,966,499	c 44	N76-31666 *
US-PATENT-3,889,155	c 33	N75-26244 *	US-PATENT-3,926,567	c 27	N76-15311 *	US-PATENT-3,966,547	c 25	N76-27383 *
US-PATENT-3,889,182	c 33	N75-26245 *	US-PATENT-3,927,227	c 12	N76-15189 *	US-PATENT-3,967,091	c 37	N76-27568 *
US-PATENT-3,889,185	c 33	N75-26246 *	US-PATENT-3,927,324	c 35	N76-15433 *	US-PATENT-3,971,230	c 37	N76-29590 *
US-PATENT-3,889,264	c 32	N75-26184 *	US-PATENT-3,927,408	c 32	N76-15329 *	US-PATENT-3,971,256	c 91	N76-30131 *
US-PATENT-3,891,311	c 54	N75-27759 *	US-PATENT-3,928,708	c 27	N76-16230 *	US-PATENT-3,971,382	c 52	N76-29894 *
US-PATENT-3,891,452	c 27	N75-27160 *	US-PATENT-3,929,119	c 75	N76-17951 *	US-PATENT-3,971,383	c 52	N76-29895 *
US-PATENT-3,891,533	c 33	N75-27252 *	US-PATENT-3,929,305	c 34	N76-17317 *	US-PATENT-3,971,384	c 52	N76-29896 *
US-PATENT-3,891,848	c 45	N75-27585 *	US-PATENT-3,929,306	c 18	N76-17185 *	US-PATENT-3,971,535	c 05	N76-28217 *
US-PATENT-3,891,851	c 35	N75-27331 *	US-PATENT-3,929,384	c 35	N76-16392 *	US-PATENT-3,971,602	c 37	N76-29588 *
US-PATENT-3,893,449	c 54	N75-27760 *	US-PATENT-3,930,628	c 02	N76-16014 *	US-PATENT-3,971,697	c 25	N76-28379 *
US-PATENT-3,893,456	c 54	N75-27761 *	US-PATENT-3,930,735	c 66	N76-18888 *	US-PATENT-3,971,703	c 51	N76-29891 *
US-PATENT-3,893,573	c 18	N75-27041 *	US-PATENT-3,931,132	c 27	N76-18228 *	US-PATENT-3,971,847	c 44	N76-29704 *
US-PATENT-3,894,289	c 36	N75-27364 *	US-PATENT-3,931,447	c 27	N76-18229 *	US-PATENT-3,971,915	c 35	N76-29552 *
US-PATENT-3,894,677	c 24	N75-28135 *	US-PATENT-3,931,456	c 33	N76-18332 *	US-PATENT-3,971,930	c 74	N76-30053 *
US-PATENT-3,894,687	c 44	N76-18641 *	US-PATENT-3,931,482	c 45	N76-17656 *	US-PATENT-3,971,940	c 35	N76-29551 *
US-PATENT-3,895,521	c 35	N75-29381 *	US-PATENT-3,931,516	c 35	N76-16393 *	US-PATENT-3,972,008	c 36	N76-29575 *
US-PATENT-3,895,912	c 35	N75-29380 *	US-PATENT-3,931,532	c 44	N76-16612 *	US-PATENT-3,972,038	c 17	N76-29347 *
US-PATENT-3,898,758	c 35	N75-33367 *	US-PATENT-3,932,262	c 25	N79-10163 *	US-PATENT-3,972,651	c 44	N76-29701 *
US-PATENT-3,898,955	c 37	N77-22480 *	US-PATENT-3,936,927	c 37	N76-19437 *	US-PATENT-3,972,727	c 44	N76-29699 *
US-PATENT-3,898,578	c 33	N75-30426 *	US-PATENT-3,937,055	c 37	N76-18454 *	US-PATENT-3,976,997	c 62	N76-31946 *
US-PATENT-3,898,730	c 24	N75-30260 *	US-PATENT-3,937,212	c 33	N76-19338 *	US-PATENT-3,977,147	c 39	N76-31562 *
US-PATENT-3,898,882	c 35	N75-30503 *	US-PATENT-3,937,215	c 52	N76-19785 *	US-PATENT-3,977,197	c 44	N76-31687 *
US-PATENT-3,898,924	c 37	N75-30562 *	US-PATENT-3,937,387	c 37	N76-18455 *	US-PATENT-3,977,231	c 35	N76-31489 *
US-PATENT-3,899,252	c 35	N75-30502 *	US-PATENT-3,937,533	c 37	N76-18459 *	US-PATENT-3,977,771	c 74	N76-31998 *
US-PATENT-3,899,517	c 23	N75-30256 *	US-PATENT-3,937,555	c 35	N76-18402 *	US-PATENT-3,977,787	c 35	N76-31480 *
US-PATENT-3,899,680	c 73	N75-30876 *	US-PATENT-3,937,661	c 37	N76-18456 *	US-PATENT-3,977,831	c 45	N76-31714 *
US-PATENT-3,899,696	c 36	N75-30524 *	US-PATENT-3,937,945	c 74	N76-18913 *	US-PATENT-3,978,187	c 37	N76-31524 *
US-PATENT-3,899,745	c 33	N75-30429 *	US-PATENT-3,938,035	c 33	N76-19339 *	US-PATENT-3,978,287	c 32	N76-31372 *
US-PATENT-3,900,705	c 33	N75-30431 *	US-PATENT-3,938,037	c 26	N76-18257 *	US-PATENT-3,978,360	c 33	N76-31409 *
US-PATENT-3,900,741	c 35	N75-30504 *	US-PATENT-3,938,162	c 32	N76-18295 *	US-PATENT-3,978,364	c 31	N76-31385 *
US-PATENT-3,900,847	c 03	N75-30132 *	US-PATENT-3,938,182	c 33	N76-18353 *	US-PATENT-3,978,410	c 03	N76-32140 *
US-PATENT-3,902,143	c 33	N75-30430 *	US-PATENT-3,938,188	c 33	N76-18345 *	US-PATENT-3,978,417	c 36	N76-31512 *
US-PATENT-3,903,699	c 44	N75-32581 *	US-PATENT-3,938,367	c 35	N76-18401 *	US-PATENT-3,978,490	c 33	N76-32457 *
US-PATENT-3,905,356	c 33	N75-31329 *	US-PATENT-3,938,373	c 35	N76-18400 *	US-PATENT-3,982,910	c 44	N77-10636 *
US-PATENT-3,905,660	c 37	N75-31446 *	US-PATENT-3,938,742	c 07	N76-18117 *	US-PATENT-3,983,695	c 20	N77-10148 *
US-PATENT-3,906,231	c 33	N75-31332 *	US-PATENT-3,938,892	c 74	N76-19935 *	US-PATENT-3,983,714	c 31	N77-10229 *
US-PATENT-3,906,286	c 33	N75-31331 *	US-PATENT-3,938,956	c 35	N76-18403 *	US-PATENT-3,983,749	c 09	N77-10071 *
US-PATENT-3,906,374	c 33	N75-31330 *	US-PATENT-3,939,048	c 37	N76-18458 *	US-PATENT-3,983,753	c 52	N77-10780 *
US-PATENT-3,906,393	c 36	N75-31427 *	US-PATENT-3,939,439	c 36	N76-18428 *	US-PATENT-3,983,780	c 28	N77-10213 *
US-PATENT-3,906,397	c 36	N75-31426 *	US-PATENT-3,940,097	c 34	N76-18384 *	US-PATENT-3,983,833	c 34	N77-10463 *
US-PATENT-3,906,398	c 36	N75-32441 *	US-PATENT-3,940,621	c 34	N76-18374 *	US-PATENT-3,984,070	c 02	N77-10001 *
US-PATENT-3,906,769	c 24	N75-33181 *	US-PATENT-3,941,355	c 37	N76-19438 *	US-PATENT-3,984,072	c 15	N77-10113 *
US-PATENT-3,906,788	c 35	N75-33369 *	US-PATENT-3,942,398	c 37	N76-20480 *	US-PATENT-3,984,256	c 44	N77-10635 *
US-PATENT-3,906,813	c 37	N76-18457 *	US-PATENT-3,943,368	c 74	N76-20958 *	US-PATENT-3,984,634	c 32	N77-10392 *
US-PATENT-3,906,954	c 52	N75-33640 *	US-PATENT-3,943,442	c 76	N76-20994 *	US-PATENT-3,984,671	c 43	N77-10584 *
US-PATENT-3,907,312	c 37	N75-33395 *	US-PATENT-3,943,763	c 04	N76-20114 *	US-PATENT-3,984,681	c 35	N77-10492 *
US-PATENT-3,907,646	c 35	N75-33368 *	US-PATENT-3,944,485	c 25	N81-19244 *	US-PATENT-3,984,685	c 47	N77-10753 *
US-PATENT-3,907,686	c 34	N75-33342 *	US-PATENT-3,945,801	c 45	N76-21742 *	US-PATENT-3,984,688	c 35	N77-10493 *
US-PATENT-3,908,118	c 38	N78-17395 *	US-PATENT-3,945,879	c 37	N76-21554 *	US-PATENT-3,984,730	c 33	N77-10429 *
US-PATENT-3,909,602	c 38	N78-17398 *	US-PATENT-3,947,281	c 27	N82-29455 *	US-PATENT-3,984,799	c 33	N77-10428 *
US-PATENT-3,910,035	c 20	N76-14190 *	US-PATENT-3,947,833	c 20	N76-21276 *	US-PATENT-3,985,454	c 74	N77-10699 *
US-PATENT-3,910,039	c 20	N76-14191 *	US-PATENT-3,948,102	c 33	N76-21390 *	US-PATENT-3,987,830	c 37	N77-12402 *
US-PATENT-3,910,257	c 52	N76-14757 *	US-PATENT-3,948,470	c 20	N76-21275 *	US-PATENT-3,988,561	c 37	N77-11397 *
US-PATENT-3,910,307	c 37	N76-14463 *	US-PATENT-3,949,206	c 32	N76-21366 *	US-PATENT-3,988,677	c 32	N77-12240 *
US-PATENT-3,910,533	c 18	N76-14186 *	US-PATENT-3,949,400	c 17	N76-21250 *	US-PATENT-3,988,716	c 60	N77-12721 *
US-PATENT-3,910,614	c 24	N76-14204 *	US-PATENT-3,949,404	c 32	N76-21365 *	US-PATENT-3,988,729	c 32	N77-12239 *
US-PATENT-3,911,260	c 35	N76-14431 *	US-PATENT-3,950,729	c 60	N76-21914 *	US-PATENT-3,988,833	c 35	N77-19385 *
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US-PATENT-4,215,327	c 32	N80-32605 *	#	US-PATENT-4,261,349	c 44	N81-24521 *	#	US-PATENT-4,300,666	c 71	N82-18800 *	#
US-PATENT-4,215,345	c 04	N80-32359 *	#	US-PATENT-4,262,067	c 27	N81-24257 *	#	US-PATENT-4,300,723	c 34	N82-13376 *	#
US-PATENT-4,215,548	c 37	N80-31790 *	#	US-PATENT-4,262,080	c 27	N81-25209 *	#	US-PATENT-4,301,740	c 37	N82-21587 *	#
US-PATENT-4,215,590	c 37	N80-32717 *	#	US-PATENT-4,262,185	c 44	N81-24520 *	#	US-PATENT-4,302,223	c 25	N82-21269 *	#
US-PATENT-4,215,592	c 37	N80-32716 *	#	US-PATENT-4,262,188	c 74	N83-19587 *	#	US-PATENT-4,302,734	c 33	N82-18340 *	#
US-PATENT-4,216,186	c 76	N80-32244 *	#	US-PATENT-4,262,206	c 74	N81-24900 *	#	US-PATENT-4,303,961	c 28	N82-18401 *	#
US-PATENT-4,216,542	c 33	N81-15192 *	#	US-PATENT-4,262,258	c 33	N81-27396 *	#	US-PATENT-4,304,219	c 44	N82-18686 *	#
US-PATENT-4,217,165	c 76	N80-32245 *	#	US-PATENT-4,262,259	c 33	N81-24338 *	#	US-PATENT-4,304,320	c 37	N82-18601 *	#
US-PATENT-4,217,633	c 44	N81-12542 *	#	US-PATENT-4,263,112	c 28	N81-24280 *	#	US-PATENT-4,305,205	c 37	N82-26672 *	#
US-PATENT-4,218,280	c 27	N80-32516 *	#	US-PATENT-4,263,310	c 54	N81-27806 *	#	US-PATENT-4,307,024	c 25	N82-24312 *	#
US-PATENT-4,218,633	c 72	N80-33186 *	#	US-PATENT-4,264,728	c 51	N81-28698 *	#	US-PATENT-4,307,510	c 60	N82-24839 *	#
US-PATENT-4,218,650	c 33	N80-32650 *	#	US-PATENT-4,264,802	c 35	N81-26431 *	#	US-PATENT-4,307,575	c 44	N82-26776 *	#
US-PATENT-4,218,682	c 32	N80-32604 *	#	US-PATENT-4,264,908	c 33	N81-26358 *	#	US-PATENT-4,307,656	c 05	N82-26277 *	#
US-PATENT-4,218,685	c 32	N81-14187 *	#	US-PATENT-4,264,940	c 33	N81-27397 *	#	US-PATENT-4,308,309	c 27	N82-24339 *	#
US-PATENT-4,218,892	c 35	N81-14287 *	#	US-PATENT-4,264,984	c 60	N81-27814 *	#	US-PATENT-4,308,868	c 52	N82-29863 *	#
US-PATENT-4,218,921	c 71	N81-15767 *	#	US-PATENT-4,265,416	c 14	N81-26161 *	#	US-PATENT-4,309,039	c 37	N82-24490 *	#
US-PATENT-4,218,941	c 37	N81-14319 *	#	US-PATENT-4,266,177	c 33	N81-27395 *	#	US-PATENT-4,309,148	c 44	N82-24639 *	#
US-PATENT-4,219,027	c 52	N81-14612 *	#	US-PATENT-4,266,743	c 08	N81-28152 *	#	US-PATENT-4,309,372	c 25	N82-21266 *	#
US-PATENT-4,219,084	c 31	N81-14137 *	#	US-PATENT-4,266,788	c 37	N81-28447 *	#	US-PATENT-4,310,049	c 25	N82-23282 *	#
US-PATENT-4,219,107	c 37	N81-15364 *	#	US-PATENT-4,267,594	c 33	N81-26359 *	#	US-PATENT-4,310,132	c 24	N82-26384 *	#
US-PATENT-4,219,171	c 37	N81-14320 *	#	US-PATENT-4,267,953	c 24	N81-26719 *	#	US-PATENT-4,310,574	c 27	N82-28441 *	#
US-PATENT-4,219,203	c 37	N81-15363 *	#	US-PATENT-4,267,992	c 37	N81-24443 *	#	US-PATENT-4,310,906	c 33	N82-26572 *	#
US-PATENT-4,219,926	c 44	N81-14389 *	#	US-PATENT-4,269,640	c 37	N82-24491 *	#	US-PATENT-4,311,055	c 54	N82-26987 *	#
US-PATENT-4,220,171	c 07	N81-14999 *	#	US-PATENT-4,269,787	c 27	N81-24256 *	#	US-PATENT-4,311,057	c 37	N82-24493 *	#
US-PATENT-4,221,005	c 32	N81-15179 *	#	US-PATENT-4,270,539	c 52	N81-28740 *	#	US-PATENT-4,311,378	c 35	N82-26628 *	#
US-PATENT-4,222,098	c 33	N81-14220 *	#	US-PATENT-4,270,984	c 44	N81-29524 *	#	US-PATENT-4,311,615	c 25	N82-26396 *	#
US-PATENT-4,225,102	c 02	N81-14968 *	#	US-PATENT-4,271,761	c 15	N82-24272 *	#	US-PATENT-4,311,670	c 44	N82-26777 *	#
US-PATENT-4,225,372	c 27	N81-14077 *	#	US-PATENT-4,272,046	c 08	N82-24205 *	#	US-PATENT-4,312,292	c 37	N82-24492 *	#
US-PATENT-4,226,475	c 43	N81-26509 *	#	US-PATENT-4,272,302	c 33	N81-26360 *	#	US-PATENT-4,313,077	c 33	N82-26569 *	#
US-PATENT-4,227,096	c 33	N81-17348 *	#	US-PATENT-4,272,470	c 23	N81-29160 *	#	US-PATENT-4,313,103	c 33	N82-26570 *	#
US-PATENT-4,228,422	c 33	N81-14221 *	#	US-PATENT-4,272,720	c 47	N82-24779 *	#	US-PATENT-4,313,291	c 09	N82-29330 *	#
US-PATENT-4,228,656	c 37	N81-14318 *	#	US-PATENT-4,273,304	c 05	N81-26114 *	#	US-PATENT-4,313,726	c 09	N82-24212 *	#
US-PATENT-4,229,182	c 28	N81-15119 *	#	US-PATENT-4,273,505	c 54	N81-26718 *	#	US-PATENT-4,313,745	c 27	N82-28442 *	#
US-PATENT-4,229,196	c 28	N81-14103 *	#	US-PATENT-4,273,918	c 27	N82-24338 *	#	US-PATENT-4,313,777	c 33	N82-26571 *	#
US-PATENT-4,229,473	c 24	N81-14000 *	#	US-PATENT-4,274,038	c 37	N81-33483 *	#	US-PATENT-4,314,984	c 25	N82-28368 *	#
US-PATENT-4,229,473	c 24	N81-33235 *	#	US-PATENT-4,274,285	c 35	N81-29407 *	#	US-PATENT-4,315,184	c 33	N82-26566 *	#
US-PATENT-4,230,717	c 52	N81-14613 *	#	US-PATENT-4,274,901	c 24	N81-33235 *	#	US-PATENT-4,315,187	c 33	N82-24421 *	#
US-PATENT-4,233,258	c 27	N81-14078 *	#	US-PATENT-4,275,317	c 33	N82-24418 *	#	US-PATENT-4,315,268	c 32	N82-27558 *	#
US-PATENT-4,233,606	c 32	N81-14185 *	#	US-PATENT-4,275,453	c 33	N82-24417 *	#	US-PATENT-4,316,035	c 23	N82-28353 *	#
US-PATENT-4,234,258	c 25	N81-14015 *	#	US-PATENT-4,276,344	c 27	N81-27272 *	#	US-PATENT-4,317,102	c 35	N82-24470 *	#
US-PATENT-4,234,715	c 25	N81-14016 *	#	US-PATENT-4,276,403	c 27	N81-27271 *	#	US-PATENT-4,319,133	c 33	N82-28545 *	#
US-PATENT-4,234,971	c 32	N81-14186 *	#	US-PATENT-4,276,553	c 27	N81-27341 *	#	US-PATENT-4			



## US-PATENT-4,327,150

US-PATENT-4,327,150 ..... c 27 N82-24340 \* #  
US-PATENT-4,327,437 ..... c 60 N82-29013 \* #  
US-PATENT-4,327,581 ..... c 09 N82-23254 \* #  
US-PATENT-4,328,484 ..... c 36 N82-28616 \* #  
US-PATENT-4,329,114 ..... c 07 N82-32366 \* #  
US-PATENT-4,329,385 ..... c 27 N82-28440 \* #  
US-PATENT-4,330,100 ..... c 05 N82-28279 \* #  
US-PATENT-4,330,359 ..... c 76 N82-30105 \* #  
US-PATENT-4,330,572 ..... c 27 N82-33520 \* #  
US-PATENT-4,331,422 ..... c 52 N82-29862 \* #  
US-PATENT-4,331,742 ..... c 44 N82-29710 \* #  
US-PATENT-4,331,746 ..... c 44 N82-29708 \* #  
US-PATENT-4,331,873 ..... c 44 N82-32841 \* #  
US-PATENT-4,331,956 ..... c 33 N82-29538 \* #  
US-PATENT-4,332,441 ..... c 36 N82-29589 \* #  
US-PATENT-4,335,190 ..... c 27 N82-31855 \* #  
US-PATENT-4,335,196 ..... c 44 N83-13579 \* #  
US-PATENT-4,335,206 ..... c 35 N82-28604 \* #  
US-PATENT-4,335,503 ..... c 44 N82-29709 \* #  
US-PATENT-4,336,117 ..... c 26 N82-29415 \* #  
US-PATENT-4,336,276 ..... c 27 N82-29453 \* #  
US-PATENT-4,336,616 ..... c 33 N82-29539 \* #  
US-PATENT-4,338,061 ..... c 07 N83-31603 \* #  
US-PATENT-4,338,368 ..... c 27 N82-29456 \* #  
US-PATENT-4,338,371 ..... c 24 N82-29362 \* #  
US-PATENT-4,338,371 ..... c 54 N84-11758 \* #  
US-PATENT-4,338,516 ..... c 74 N82-30071 \* #  
US-PATENT-4,338,568 ..... c 33 N83-31954 \* #  
US-PATENT-4,340,318 ..... c 37 N82-32732 \* #  
US-PATENT-4,340,425 ..... c 26 N82-31505 \* #  
US-PATENT-4,341,012 ..... c 35 N82-31659 \* #  
US-PATENT-4,341,843 ..... c 26 N82-30371 \* #  
US-PATENT-4,341,918 ..... c 44 N82-31764 \* #  
US-PATENT-4,341,925 ..... c 32 N82-31583 \* #  
US-PATENT-4,343,287 ..... c 37 N82-32730 \* #  
US-PATENT-4,343,447 ..... c 08 N82-32373 \* #  
US-PATENT-4,343,506 ..... c 85 N82-33288 \* #  
US-PATENT-4,343,584 ..... c 37 N82-32731 \* #  
US-PATENT-4,343,772 ..... c 44 N83-10501 \* #  
US-PATENT-4,344,591 ..... c 24 N82-32417 \* #  
US-PATENT-4,344,787 ..... c 31 N83-31896 \* #  
US-PATENT-4,344,996 ..... c 27 N82-33521 \* #  
US-PATENT-4,345,153 ..... c 35 N82-32659 \* #  
US-PATENT-4,346,595 ..... c 06 N83-10040 \* #  
US-PATENT-4,346,595 ..... c 06 N84-34443 \* #  
US-PATENT-4,346,715 ..... c 52 N82-33996 \* #  
US-PATENT-4,346,754 ..... c 34 N83-34221 \* #  
US-PATENT-4,346,990 ..... c 36 N82-32712 \* #  
US-PATENT-4,347,613 ..... c 36 N83-10417 \* #  
US-PATENT-4,349,424 ..... c 24 N83-10117 \* #  
US-PATENT-4,349,424 ..... c 70 N84-28565 \* #  
US-PATENT-4,349,429 ..... c 25 N83-10126 \* #  
US-PATENT-4,349,954 ..... c 26 N83-10170 \* #  
US-PATENT-4,350,410 ..... c 74 N83-10900 \* #  
US-PATENT-4,350,574 ..... c 44 N83-10494 \* #  
US-PATENT-4,351,022 ..... c 33 N83-10345 \* #  
US-PATENT-4,355,311 ..... c 32 N83-31818 \* #  
US-PATENT-4,355,870 ..... c 74 N83-13978 \* #  
US-PATENT-4,355,896 ..... c 47 N83-32232 \* #  
US-PATENT-4,357,402 ..... c 25 N83-13188 \* #  
US-PATENT-4,358,358 ..... c 25 N83-13187 \* #  
US-PATENT-4,358,480 ..... c 24 N83-13172 \* #  
US-PATENT-4,358,486 ..... c 24 N83-13171 \* #  
US-PATENT-4,358,732 ..... c 33 N83-18996 \* #  
US-PATENT-4,358,846 ..... c 32 N83-13323 \* #  
US-PATENT-4,360,325 ..... c 44 N83-14693 \* #  
US-PATENT-4,360,701 ..... c 44 N83-14692 \* #  
US-PATENT-4,362,361 ..... c 74 N83-17305 \* #  
US-PATENT-4,362,769 ..... c 27 N83-34039 \* #  
US-PATENT-4,363,188 ..... c 51 N83-17045 \* #  
US-PATENT-4,363,237 ..... c 71 N83-17235 \* #  
US-PATENT-4,363,242 ..... c 33 N83-16626 \* #  
US-PATENT-4,366,680 ..... c 31 N83-31897 \* #  
US-PATENT-4,370,750 ..... c 34 N83-19015 \* #  
US-PATENT-4,371,301 ..... c 37 N83-19091 \* #  
US-PATENT-4,371,596 ..... c 44 N83-32176 \* #  
US-PATENT-4,371,873 ..... c 32 N83-19968 \* #  
US-PATENT-4,371,946 ..... c 32 N83-18975 \* #  
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US-PATENT-4,372,158 ..... c 44 N83-21503 \* #  
US-PATENT-4,372,159 ..... c 44 N83-21504 \* #  
US-PATENT-4,372,377 ..... c 74 N83-18596 \* #  
US-PATENT-4,372,680 ..... c 35 N83-21311 \* #  
US-PATENT-4,373,003 ..... c 27 N83-18908 \* #  
US-PATENT-4,373,039 ..... c 27 N83-19900 \* #  
US-PATENT-4,373,142 ..... c 44 N83-32175 \* #  
US-PATENT-4,373,989 ..... c 76 N83-20789 \* #  
US-PATENT-4,374,183 ..... c 26 N83-31795 \* #  
US-PATENT-4,374,378 ..... c 35 N83-34272 \* #  
US-PATENT-4,375,281 ..... c 05 N83-19737 \* #  
US-PATENT-4,375,394 ..... c 31 N83-19947 \* #  
US-PATENT-4,375,536 ..... c 27 N83-34040 \* #  
US-PATENT-4,375,674 ..... c 39 N83-20280 \* #  
US-PATENT-4,376,637 ..... c 35 N84-17555 \* #  
US-PATENT-4,376,872 ..... c 44 N83-32177 \* #  
US-PATENT-4,377,089 ..... c 35 N83-21312 \* #

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US-PATENT-4,377,266 ..... c 07 N83-20944 \* #  
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US-PATENT-4,377,371 ..... c 18 N83-20996 \* #  
US-PATENT-4,377,371 ..... c 37 N84-22957 \* #  
US-PATENT-4,377,949 ..... c 45 N83-25217 \* #  
US-PATENT-4,378,209 ..... c 35 N83-24828 \* #  
US-PATENT-4,378,813 ..... c 52 N83-25346 \* #  
US-PATENT-4,378,970 ..... c 33 N83-24763 \* #  
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US-PATENT-4,381,174 ..... c 37 N83-26078 \* #  
US-PATENT-4,381,333 ..... c 44 N83-34448 \* #  
US-PATENT-4,381,375 ..... c 37 N83-34323 \* #  
US-PATENT-4,381,583 ..... c 31 N83-31895 \* #  
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US-PATENT-4,382,116 ..... c 44 N83-27344 \* #  
US-PATENT-4,382,224 ..... c 33 N83-27126 \* #  
US-PATENT-4,382,239 ..... c 32 N83-27085 \* #  
US-PATENT-4,383,171 ..... c 35 N83-27184 \* #  
US-PATENT-4,383,533 ..... c 52 N83-27576 \* #  
US-PATENT-4,383,785 ..... c 31 N83-27058 \* #  
US-PATENT-4,384,578 ..... c 52 N83-27577 \* #  
US-PATENT-4,384,823 ..... c 34 N83-27144 \* #  
US-PATENT-4,385,043 ..... c 24 N83-25789 \* #  
US-PATENT-4,385,113 ..... c 51 N83-27569 \* #  
US-PATENT-4,385,949 ..... c 31 N83-34073 \* #  
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US-PATENT-4,386,750 ..... c 18 N83-28064 \* #  
US-PATENT-4,387,513 ..... c 06 N83-33882 \* #  
US-PATENT-4,387,935 ..... c 37 N83-32067 \* #  
US-PATENT-4,388,171 ..... c 23 N84-16255 \* #  
US-PATENT-4,388,346 ..... c 33 N84-16456 \* #  
US-PATENT-4,388,502 ..... c 05 N83-27975 \* #  
US-PATENT-4,388,542 ..... c 44 N83-28573 \* #  
US-PATENT-4,388,585 ..... c 33 N83-28319 \* #  
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US-PATENT-4,391,129 ..... c 34 N83-31993 \* #  
US-PATENT-4,391,423 ..... c 18 N83-29303 \* #  
US-PATENT-4,391,514 ..... c 36 N83-34304 \* #  
US-PATENT-4,391,518 ..... c 36 N83-29680 \* #  
US-PATENT-4,391,609 ..... c 25 N83-31743 \* #  
US-PATENT-4,392,356 ..... c 34 N83-29625 \* #  
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US-PATENT-4,394,726 ..... c 60 N83-32342 \* #  
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US-PATENT-4,395,511 ..... c 27 N84-14324 \* #  
US-PATENT-4,395,540 ..... c 27 N84-22748 \* #  
US-PATENT-4,395,557 ..... c 27 N83-31854 \* #  
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US-PATENT-4,395,656 ..... c 33 N83-31952 \* #  
US-PATENT-4,396,918 ..... c 04 N84-27713 \* #  
US-PATENT-4,397,716 ..... c 44 N83-34449 \* #  
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US-PATENT-4,398,687 ..... c 71 N84-14873 \* #  
US-PATENT-4,398,925 ..... c 71 N83-35781 \* #  
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US-PATENT-4,400,191 ..... c 35 N84-14491 \* #  
US-PATENT-4,400,642 ..... c 31 N83-35176 \* #  
US-PATENT-4,400,642 ..... c 76 N83-34796 \* #  
US-PATENT-4,400,657 ..... c 33 N83-34190 \* #  
US-PATENT-4,401,505 ..... c 76 N83-35888 \* #  
US-PATENT-4,401,934 ..... c 33 N83-35227 \* #  
US-PATENT-4,401,953 ..... c 33 N83-34191 \* #  
US-PATENT-4,402,221 ..... c 71 N83-36848 \* #  
US-PATENT-4,402,358 ..... c 34 N83-35307 \* #  
US-PATENT-4,402,447 ..... c 35 N83-35338 \* #  
US-PATENT-4,402,992 ..... c 31 N83-35177 \* #  
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US-PATENT-4,404,793 ..... c 07 N83-36020 \* #  
US-PATENT-4,405,184 ..... c 37 N84-12492 \* #  
US-PATENT-4,405,197 ..... c 74 N84-11921 \* #  
US-PATENT-4,406,256 ..... c 37 N83-36483 \* #  
US-PATENT-4,406,797 ..... c 25 N83-36118 \* #  
US-PATENT-4,406,989 ..... c 33 N83-36356 \* #  
US-PATENT-4,407,001 ..... c 33 N83-36355 \* #  
US-PATENT-4,407,165 ..... c 37 N83-36482 \* #  
US-PATENT-4,407,468 ..... c 01 N83-35892 \* #  
US-PATENT-4,407,563 ..... c 74 N83-36898 \* #  
US-PATENT-4,407,589 ..... c 33 N83-36357 \* #  
US-PATENT-4,407,686 ..... c 35 N84-12443 \* #

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US-PATENT-4,411,597 ..... c 07 N84-22560 \* #  
US-PATENT-4,411,660 ..... c 54 N84-11758 \* #  
US-PATENT-4,412,664 ..... c 02 N84-11136 \* #  
US-PATENT-4,413,522 ..... c 35 N84-12445 \* #  
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US-PATENT-4,414,509 ..... c 35 N84-12444 \* #  
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US-PATENT-4,415,311 ..... c 37 N84-12493 \* #  
US-PATENT-4,415,450 ..... c 45 N84-12654 \* #  
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US-PATENT-4,418,480 ..... c 04 N84-14132 \* #  
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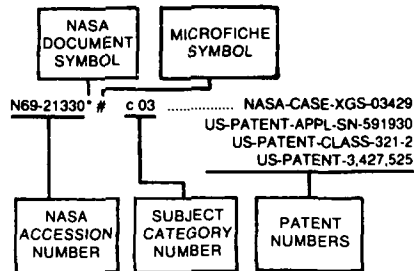
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		US-PATENT-APPL-SN-759457			US-PATENT-APPL-SN-400617			US-PATENT-3,500,525
		US-PATENT-CLASS-236-1			US-PATENT-CLASS-244-3.22			NASA-CASE-XLA-00337
N71-16365*	c 23	US-PATENT-3,526,359	N71-17631*	c 12	US-PATENT-3,276,376			US-PATENT-APPL-SN-393461
		NASA-CASE-XNP-08840			NASA-CASE-NPO-10122	N71-17692*	c 15	US-PATENT-CLASS-244-3.14
		US-PATENT-APPL-SN-649360			US-PATENT-APPL-SN-710949			US-PATENT-3,310,258
		US-PATENT-CLASS-356-36			US-PATENT-CLASS-60-217			NASA-CASE-MFS-14772
N71-16392*	c 27	US-PATENT-3,526,460	N71-17645*	c 32	US-PATENT-3,534,555			US-PATENT-APPL-SN-774151
		NASA-CASE-XNP-09744			NASA-CASE-XNP-01153			US-PATENT-CLASS-74-63
		US-PATENT-APPL-SN-685750			US-PATENT-APPL-SN-336608	N71-17693*	c 15	US-PATENT-3,529,480
		US-PATENT-CLASS-60-39.47			US-PATENT-CLASS-73-88			NASA-CASE-NPO-10064
N71-16393*	c 17	US-PATENT-3,507,114	N71-17647*	c 15	US-PATENT-3,273,381			US-PATENT-APPL-SN-668755
		NASA-CASE-NPO-10271			NASA-CASE-XMF-01667	N71-17694*	c 15	US-PATENT-CLASS-244-1
		US-PATENT-APPL-SN-763869			US-PATENT-APPL-SN-577115			US-PATENT-3,501,112
		US-PATENT-CLASS-21-207			US-PATENT-CLASS-118-11			NASA-CASE-XNP-08897
N71-16428*	c 32	US-PATENT-3,529,928	N71-17648*	c 15	US-PATENT-3,502,051			US-PATENT-APPL-SN-640450
		NASA-CASE-XLA-03135			NASA-CASE-MSC-12116-1			US-PATENT-CLASS-318-22
		US-PATENT-APPL-SN-582171			US-PATENT-APPL-SN-768336	N71-17696*	c 15	US-PATENT-3,501,683
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		NASA-CASE-MSC-12084-1			NASA-CASE-XMF-05114			US-PATENT-CLASS-73-29
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N71-19545*	c 03	US-PATENT-3,474,441 NASA-CASE-NPO-10821 US-PATENT-APPL-SN-670814 US-PATENT-CLASS-136-89 US-PATENT-3,468,198	N71-20439*	c 14	US-PATENT-3,461,721 NASA-CASE-XAC-04888-1 US-PATENT-APPL-SN-674290 US-PATENT-CLASS-73-142 US-PATENT-3,425,272	N71-20742*	c 18	US-PATENT-3,360,980 NASA-CASE-XMS-02952 US-PATENT-APPL-SN-519160 US-PATENT-CLASS-55-158 US-PATENT-3,355,861
N71-19547*	c 10	NASA-CASE-XGS-03058 US-PATENT-APPL-SN-568887 US-PATENT-CLASS-307-289 US-PATENT-3,517,221	N71-20440*	c 15	NASA-CASE-XNP-09770 US-PATENT-APPL-SN-700120 US-PATENT-CLASS-209-10 US-PATENT-3,472,372	N71-20743*	c 17	NASA-CASE-XMF-02788 US-PATENT-APPL-SN-468873 US-PATENT-CLASS-75-142 US-PATENT-3,347,685
N71-19568*	c 14	NASA-CASE-MSC-10968 US-PATENT-APPL-SN-665678 US-PATENT-CLASS-250-203 US-PATENT-3,421,004	N71-20441*	c 15	NASA-CASE-XMS-06329-1 US-PATENT-APPL-SN-688742 US-PATENT-CLASS-73-141 US-PATENT-3,472,069	N71-20747*	c 25	NASA-CASE-XLE-02578 US-PATENT-APPL-SN-469012 US-PATENT-CLASS-313-271 US-PATENT-3,356,885
N71-19569*	c 15	NASA-CASE-XLA-05749 US-PATENT-APPL-SN-621714 US-PATENT-CLASS-137-582 US-PATENT-3,426,791	N71-20442*	c 14	NASA-CASE-MFS-11537 US-PATENT-APPL-SN-636878 US-PATENT-CLASS-23-254 US-PATENT-3,472,629	N71-20782*	c 10	NASA-CASE-XGS-01784 US-PATENT-APPL-SN-396444 US-PATENT-CLASS-250-208 US-PATENT-3,348,063
N71-19570*	c 15	NASA-CASE-XLE-05130-2 US-PATENT-APPL-SN-700586 US-PATENT-CLASS-277-25 US-PATENT-3,466,052	N71-20443*	c 15	NASA-CASE-MFS-07369 US-PATENT-APPL-SN-640462 US-PATENT-CLASS-29-492 US-PATENT-3,473,216	N71-20791*	c 07	NASA-CASE-XNP-05254 US-PATENT-APPL-SN-472372 US-PATENT-CLASS-325-31 US-PATENT-3,350,843
N71-19610*	c 09	NASA-CASE-NPO-10037 US-PATENT-APPL-SN-700887 US-PATENT-CLASS-200-152 US-PATENT-3,470,342	N71-20445*	c 09	NASA-CASE-XNP-09775 US-PATENT-APPL-SN-668247 US-PATENT-CLASS-333-98 US-PATENT-3,474,357	N71-20813*	c 15	NASA-CASE-XMS-02184 US-PATENT-APPL-SN-608247 US-PATENT-CLASS-248-27 US-PATENT-3,381,400
N71-19687*	c 08	NASA-CASE-XNP-04780 US-PATENT-APPL-SN-455477 US-PATENT-CLASS-340-347 US-PATENT-3,430,227	N71-20446*	c 09	NASA-CASE-XLE-04250 US-PATENT-APPL-SN-621098 US-PATENT-CLASS-310-54 US-PATENT-3,447,003	N71-20814*	c 07	NASA-CASE-XNP-01306 US-PATENT-APPL-SN-343428 US-PATENT-CLASS-179-15 US-PATENT-3,364,311
N71-19763*	c 08	NASA-CASE-XAC-06302 US-PATENT-APPL-SN-574284 US-PATENT-CLASS-325-60 US-PATENT-3,456,193	N71-20447*	c 09	NASA-CASE-XLA-02850 US-PATENT-APPL-SN-556784 US-PATENT-CLASS-307-267 US-PATENT-3,473,050	N71-20815*	c 12	NASA-CASE-XMF-01779 US-PATENT-APPL-SN-521999 US-PATENT-CLASS-346-1 US-PATENT-3,357,024
N71-19773*	c 07	NASA-CASE-GSC-10373-1 US-PATENT-APPL-SN-712658 US-PATENT-CLASS-325-4 US-PATENT-3,532,985	N71-20448*	c 10	NASA-CASE-XNP-03744 US-PATENT-APPL-SN-547677 US-PATENT-CLASS-318-314 US-PATENT-3,424,966	N71-20816*	c 09	NASA-CASE-XAC-01677 US-PATENT-APPL-SN-596338 US-PATENT-CLASS-73-147 US-PATENT-3,360,988
N71-19854*	c 07	NASA-CASE-GSC-10553-1 US-PATENT-APPL-SN-820963 US-PATENT-CLASS-343-100 US-PATENT-3,534,365	N71-20461*	c 14	NASA-CASE-XNP-09763 US-PATENT-APPL-SN-600682 US-PATENT-CLASS-117-6 US-PATENT-3,433,662	N71-20834*	c 33	NASA-CASE-XMS-02009 US-PATENT-APPL-SN-455302 US-PATENT-CLASS-141-5 US-PATENT-3,349,814
N71-20268*	c 05	NASA-CASE-XLA-02898 US-PATENT-APPL-SN-429932 US-PATENT-CLASS-128-1 US-PATENT-3,461,855	N71-20491*	c 03	NASA-CASE-XGS-05434 US-PATENT-APPL-SN-667636 US-PATENT-CLASS-136-182 US-PATENT-3,463,873	N71-20841*	c 10	NASA-CASE-XGS-01222 US-PATENT-APPL-SN-354182 US-PATENT-CLASS-325-305 US-PATENT-3,348,152
N71-20273*	c 03	NASA-CASE-NPO-10188 US-PATENT-APPL-SN-681687 US-PATENT-CLASS-244-1 US-PATENT-3,473,758	N71-20492*	c 03	NASA-CASE-XLE-04787 US-PATENT-APPL-SN-551846 US-PATENT-CLASS-136-89 US-PATENT-3,434,885	N71-20842*	c 09	NASA-CASE-XNP-05381 US-PATENT-APPL-SN-568352 US-PATENT-CLASS-338-82 US-PATENT-3,350,671
N71-20330*	c 28	NASA-CASE-XLE-103477-1 US-PATENT-APPL-SN-466390 US-PATENT-CLASS-60-39.36 US-PATENT-3,433,015	N71-20518*	c 24	NASA-CASE-XNP-02592 US-PATENT-APPL-SN-484490 US-PATENT-CLASS-324-33 US-PATENT-3,430,131	N71-20851*	c 09	NASA-CASE-XNP-04732 US-PATENT-APPL-SN-557584 US-PATENT-CLASS-339-177 US-PATENT-3,358,264
N71-20393*	c 15	NASA-CASE-MFS-06074 US-PATENT-APPL-SN-688743 US-PATENT-CLASS-228-9 US-PATENT-3,458,104	N71-20563*	c 25	NASA-CASE-XLA-06232 US-PATENT-APPL-SN-612740 US-PATENT-CLASS-324-58.5 US-PATENT-3,473,116	N71-20852*	c 10	NASA-CASE-XGS-03502 US-PATENT-APPL-SN-584086 US-PATENT-CLASS-331-17 US-PATENT-3,381,985
N71-20395*	c 15	NASA-CASE-XMF-06065 US-PATENT-APPL-SN-665679 US-PATENT-CLASS-219-275 US-PATENT-3,466,424	N71-20569*	c 09	NASA-CASE-XMS-08569-1 US-PATENT-APPL-SN-544899 US-PATENT-CLASS-324-57 US-PATENT-3,434,050	N71-20864*	c 09	NASA-CASE-XGS-03501 US-PATENT-APPL-SN-576521 US-PATENT-CLASS-343-16 US-PATENT-3,359,555
N71-20396*	c 31	NASA-CASE-XMF-08523 US-PATENT-APPL-SN-645563 US-PATENT-CLASS-244-1 US-PATENT-3,465,986	N71-20570*	c 02	NASA-CASE-XAC-08972 US-PATENT-APPL-SN-700174 US-PATENT-CLASS-244-76 US-PATENT-3,472,470	N71-20895*	c 03	NASA-CASE-XNP-00826 US-PATENT-APPL-SN-327163 US-PATENT-CLASS-136-89 US-PATENT-3,346,419
N71-20400*	c 16	NASA-CASE-MFS-11279 US-PATENT-APPL-SN-628094 US-PATENT-CLASS-219-121 US-PATENT-3,472,996	N71-20571*	c 08	NASA-CASE-XGS-04987 US-PATENT-APPL-SN-619908 US-PATENT-CLASS-315-24 US-PATENT-3,437,874	N71-20896*	c 12	NASA-CASE-XNP-02251 US-PATENT-APPL-SN-432030 US-PATENT-CLASS-321-48 US-PATENT-3,337,790
N71-20407*	c 03	NASA-CASE-NPO-10184 US-PATENT-APPL-SN-668249 US-PATENT-CLASS-136-182 US-PATENT-3,460,995	N71-20658*	c 09	NASA-CASE-XMS-03454 US-PATENT-APPL-SN-425363 US-PATENT-CLASS-343-915 US-PATENT-3,360,798	N71-20904*	c 03	NASA-CASE-XLE-01645 US-PATENT-APPL-SN-342574 US-PATENT-CLASS-136-86 US-PATENT-3,357,862
N71-20427*	c 14	NASA-CASE-XMS-13052 US-PATENT-APPL-SN-561223 US-PATENT-CLASS-62-268 US-PATENT-3,455,121	N71-20705*	c 09	NASA-CASE-XMF-01599 US-PATENT-APPL-SN-381940 US-PATENT-CLASS-117-212 US-PATENT-3,359,132	N71-20905*	c 06	NASA-CASE-XMF-02584 US-PATENT-APPL-SN-508135 US-PATENT-CLASS-260-2 US-PATENT-3,346,515
N71-20428*	c 14	NASA-CASE-XGS-04879 US-PATENT-APPL-SN-541399 US-PATENT-CLASS-324-5 US-PATENT-3,443,208	N71-20717*	c 06	NASA-CASE-XMF-04133 US-PATENT-APPL-SN-554849 US-PATENT-CLASS-260-2 US-PATENT-3,354,088	N71-20942*	c 28	NASA-CASE-XNP-04389 US-PATENT-APPL-SN-523511 US-PATENT-CLASS-60-265 US-PATENT-3,353,359
N71-20429*	c 14	NASA-CASE-XLE-05260 US-PATENT-APPL-SN-674355 US-PATENT-CLASS-73-117.4 US-PATENT-3,463,001	N71-20718*	c 05	NASA-CASE-XMS-04625 US-PATENT-APPL-SN-519161 US-PATENT-CLASS-244-122 US-PATENT-3,356,320	N71-21008*	c 14	NASA-CASE-XLA-01832 US-PATENT-APPL-SN-517858 US-PATENT-CLASS-346-50 US-PATENT-3,354,462
N71-20430*	c 14	NASA-CASE-XLA-03645 US-PATENT-APPL-SN-600266 US-PATENT-CLASS-250-83 US-PATENT-3,450,878	N71-20739*	c 15	NASA-CASE-XGS-02011 US-PATENT-APPL-SN-502693 US-PATENT-CLASS-308-9 US-PATENT-3,359,046	N71-21007*	c 14	NASA-CASE-XMS-06238 US-PATENT-APPL-SN-482670 US-PATENT-CLASS-73-290 US-PATENT-3,355,946
N71-20435*	c 14	NASA-CASE-XMS-06767-1 US-PATENT-APPL-SN-716795 US-PATENT-CLASS-73-422 US-PATENT-3,438,263	N71-20740*	c 15	NASA-CASE-XLA-01808 US-PATENT-APPL-SN-517150 US-PATENT-CLASS-74-471 US-PATENT-3,364,777	N71-21042*	c 08	NASA-CASE-XGS-01021 US-PATENT-APPL-SN-278646 US-PATENT-CLASS-340-174.1 US-PATENT-3,327,298
N71-20436*	c 12	NASA-CASE-LAR-11138 US-PATENT-APPL-SN-694317 US-PATENT-CLASS-73-147	N71-20741*	c 14	NASA-CASE-XMS-01818 US-PATENT-APPL-SN-418382 US-PATENT-CLASS-73-29	N71-21045*	c 32	NASA-CASE-XLA-01731 US-PATENT-APPL-SN-425385 US-PATENT-CLASS-52-2

N71-21060*	c 15	US-PATENT-3,364,631 NASA-CASE-XLA-03660 US-PATENT-APPL-SN-482307 US-PATENT-CLASS-95-53 US-PATENT-3,361,045	N71-21483*	c 10	US-PATENT-3,345,866 NASA-CASE-XGS-01155 US-PATENT-APPL-SN-557871 US-PATENT-CLASS-343-16 US-PATENT-3,344,425	N71-22706*	c 15	US-PATENT-3,341,977 NASA-CASE-XMS-09310 US-PATENT-APPL-SN-655724 US-PATENT-CLASS-137-496 US-PATENT-3,384,111
N71-21064*	c 31	NASA-CASE-XGS-02554 US-PATENT-APPL-SN-504266 US-PATENT-CLASS-244-1 US-PATENT-3,350,034	N71-21489*	c 15	NASA-CASE-XNP-06914 US-PATENT-APPL-SN-590147 US-PATENT-CLASS-85-33 US-PATENT-3,352,182	N71-22707*	c 08	NASA-CASE-XNP-04067 US-PATENT-APPL-SN-466875 US-PATENT-CLASS-340-172.5 US-PATENT-3,369,222
N71-21068*	c 18	NASA-CASE-XNP-02888 US-PATENT-APPL-SN-409126 US-PATENT-CLASS-239-265.11 US-PATENT-3,347,465	N71-21493*	c 28	NASA-CASE-XLA-10450 US-PATENT-APPL-SN-594587 US-PATENT-CLASS-239-265.19 US-PATENT-3,347,466	N71-22710*	c 08	NASA-CASE-XNP-02778 US-PATENT-APPL-SN-508170 US-PATENT-CLASS-340-172.5 US-PATENT-3,369,223
N71-21072*	c 14	NASA-CASE-XAC-02981 US-PATENT-APPL-SN-464879 US-PATENT-CLASS-73-398 US-PATENT-3,352,157	N71-21507*	c 33	NASA-CASE-XLE-04603 US-PATENT-APPL-SN-638194 US-PATENT-CLASS-60-243 US-PATENT-3,347,046	N71-22713*	c 15	NASA-CASE-XLA-03492 US-PATENT-APPL-SN-395348 US-PATENT-CLASS-156-60 US-PATENT-3,342,653
N71-21076*	c 15	NASA-CASE-XMS-03745 US-PATENT-APPL-SN-534295 US-PATENT-CLASS-24-263 US-PATENT-3,346,929	N71-21528*	c 15	NASA-CASE-XLA-01446 US-PATENT-APPL-SN-400613 US-PATENT-CLASS-53-102 US-PATENT-3,336,725	N71-22721*	c 15	NASA-CASE-XMF-03212 US-PATENT-APPL-SN-577549 US-PATENT-CLASS-55-418 US-PATENT-3,385,036
N71-21078*	c 15	NASA-CASE-XNP-03459 US-PATENT-APPL-SN-457879 US-PATENT-CLASS-29-495 US-PATENT-3,357,093	N71-21529*	c 15	NASA-CASE-XGS-02422 US-PATENT-APPL-SN-493943 US-PATENT-CLASS-74-126 US-PATENT-3,331,255	N71-22722*	c 15	NASA-CASE-XMS-04292 US-PATENT-APPL-SN-517157 US-PATENT-CLASS-82-14 US-PATENT-3,373,640
N71-21079*	c 14	NASA-CASE-XLA-03102 US-PATENT-APPL-SN-578195 US-PATENT-CLASS-33-31 US-PATENT-3,364,578	N71-21530*	c 15	NASA-CASE-XMS-03722 US-PATENT-APPL-SN-487934 US-PATENT-CLASS-267-84 US-PATENT-3,330,549	N71-22723*	c 15	NASA-CASE-XMF-01083 US-PATENT-APPL-SN-432028 US-PATENT-CLASS-72-83 US-PATENT-3,340,713
N71-21082*	c 14	NASA-CASE-XGS-02629 US-PATENT-APPL-SN-500435 US-PATENT-CLASS-244-1 US-PATENT-3,350,033	N71-21531*	c 15	NASA-CASE-XNP-02341 US-PATENT-APPL-SN-432025 US-PATENT-CLASS-52-127 US-PATENT-3,330,082	N71-22748*	c 05	NASA-CASE-XMS-04170 US-PATENT-APPL-SN-482311 US-PATENT-CLASS-9-312 US-PATENT-3,343,189
N71-21088*	c 14	NASA-CASE-XNP-06957 US-PATENT-APPL-SN-406097 US-PATENT-CLASS-250-83.3 US-PATENT-3,348,048	N71-21536*	c 15	NASA-CASE-XMS-06876 US-PATENT-APPL-SN-605100 US-PATENT-CLASS-72-34 US-PATENT-3,345,840	N71-22749*	c 08	NASA-CASE-XNP-02748 US-PATENT-APPL-SN-420245 US-PATENT-CLASS-340-146.1 US-PATENT-3,373,404
N71-21089*	c 12	NASA-CASE-XMS-01905 US-PATENT-APPL-SN-280580 US-PATENT-CLASS-141-91 US-PATENT-3,331,404	N71-21583*	c 09	NASA-CASE-XLE-02008 US-PATENT-APPL-SN-487342 US-PATENT-CLASS-338-64 US-PATENT-3,329,918	N71-22750*	c 07	NASA-CASE-XNP-01735 US-PATENT-APPL-SN-408438 US-PATENT-CLASS-343-786 US-PATENT-3,373,431
N71-21090*	c 14	NASA-CASE-XLE-00787 US-PATENT-APPL-SN-330210 US-PATENT-CLASS-324-33 US-PATENT-3,346,806	N71-21586*	c 33	NASA-CASE-XLA-01794 US-PATENT-APPL-SN-464880 US-PATENT-CLASS-73-86 US-PATENT-3,357,237	N71-22752*	c 14	NASA-CASE-XMF-01974 US-PATENT-APPL-SN-568354 US-PATENT-CLASS-73-419 US-PATENT-3,383,922
N71-21091*	c 14	NASA-CASE-XNP-02983 US-PATENT-APPL-SN-407599 US-PATENT-CLASS-73-88.5 US-PATENT-3,350,926	N71-21651*	c 18	NASA-CASE-XMF-01402 US-PATENT-APPL-SN-328140 US-PATENT-CLASS-161-68 US-PATENT-3,346,442	N71-22765*	c 14	NASA-CASE-XLA-00934 US-PATENT-APPL-SN-326298 US-PATENT-CLASS-73-84 US-PATENT-3,339,404
N71-21177*	c 15	NASA-CASE-XAC-06956 US-PATENT-APPL-SN-538166 US-PATENT-CLASS-259-71 US-PATENT-3,347,531	N71-21688*	c 21	NASA-CASE-XMF-00684 US-PATENT-APPL-SN-260087 US-PATENT-CLASS-235-150.25 US-PATENT-3,331,951	N71-22792*	c 33	NASA-CASE-XLA-01243 US-PATENT-APPL-SN-538911 US-PATENT-CLASS-244-1 US-PATENT-3,384,324
N71-21179*	c 15	NASA-CASE-XLA-01401 US-PATENT-APPL-SN-382976 US-PATENT-CLASS-235-61.6 US-PATENT-3,346,724	N71-21693*	c 25	NASA-CASE-XLA-03103 US-PATENT-APPL-SN-531642 US-PATENT-CLASS-315-111 US-PATENT-3,333,152	N71-22796*	c 09	NASA-CASE-XKS-03381 US-PATENT-APPL-SN-437611 US-PATENT-CLASS-317-9 US-PATENT-3,340,430
N71-21234*	c 15	NASA-CASE-XKS-02582 US-PATENT-APPL-SN-424153 US-PATENT-CLASS-251-172 US-PATENT-3,327,991	N71-21694*	c 25	NASA-CASE-XLE-02902 US-PATENT-APPL-SN-485957 US-PATENT-CLASS-60-202 US-PATENT-3,336,748	N71-22797*	c 15	NASA-CASE-XLE-01092 US-PATENT-APPL-SN-422098 US-PATENT-CLASS-72-253 US-PATENT-3,342,055
N71-21311*	c 15	NASA-CASE-XNP-03637 US-PATENT-APPL-SN-453232 US-PATENT-CLASS-310-9.1 US-PATENT-3,359,435	N71-21708*	c 21	NASA-CASE-XLA-02551 US-PATENT-APPL-SN-416940 US-PATENT-CLASS-244-1 US-PATENT-3,329,375	N71-22798*	c 15	NASA-CASE-XMS-04175 US-PATENT-APPL-SN-511299 US-PATENT-CLASS-83-467 US-PATENT-3,367,224
N71-21403*	c 15	NASA-CASE-XMF-03988 US-PATENT-APPL-SN-578923 US-PATENT-CLASS-252-26 US-PATENT-3,361,666	N71-21744*	c 15	NASA-CASE-XGS-04227 US-PATENT-APPL-SN-545805 US-PATENT-CLASS-74-409 US-PATENT-3,359,819	N71-22799*	c 15	NASA-CASE-XMF-03511 US-PATENT-APPL-SN-540414 US-PATENT-CLASS-90-12 US-PATENT-3,386,337
N71-21404*	c 15	NASA-CASE-XLA-01262 US-PATENT-APPL-SN-386800 US-PATENT-CLASS-156-3 US-PATENT-3,356,549	N71-21819*	c 27	NASA-CASE-XLE-03494 US-PATENT-APPL-SN-529593 US-PATENT-CLASS-60-251 US-PATENT-3,345,822	N71-22874*	c 15	NASA-CASE-XLA-00188 US-PATENT-APPL-SN-254847 US-PATENT-CLASS-102-49.5 US-PATENT-3,368,486
N71-21449*	c 09	NASA-CASE-XMS-01991 US-PATENT-APPL-SN-410326 US-PATENT-CLASS-323-22 US-PATENT-3,344,340	N71-21821*	c 23	NASA-CASE-XNP-01059 US-PATENT-APPL-SN-393464 US-PATENT-CLASS-250-232 US-PATENT-3,354,320	N71-22875*	c 11	NASA-CASE-XAC-05333 US-PATENT-APPL-SN-546148 US-PATENT-CLASS-119-15 US-PATENT-3,367,308
N71-21473*	c 10	NASA-CASE-XGS-08679 US-PATENT-APPL-SN-312443 US-PATENT-CLASS-343-113 US-PATENT-3,340,532	N71-21822*	c 28	NASA-CASE-XNP-04124 US-PATENT-APPL-SN-498168 US-PATENT-CLASS-60-202 US-PATENT-3,345,820	N71-22877*	c 15	NASA-CASE-XMF-10040 US-PATENT-APPL-SN-592680 US-PATENT-CLASS-188-1 US-PATENT-3,381,778
N71-21474*	c 11	NASA-CASE-XMS-04788 US-PATENT-APPL-SN-480210 US-PATENT-CLASS-35-12 US-PATENT-3,330,052	N71-21824*	c 26	NASA-CASE-XNP-05425 US-PATENT-APPL-SN-578928 US-PATENT-CLASS-103-1 US-PATENT-3,361,067	N71-22878*	c 15	NASA-CASE-XMS-04545 US-PATENT-APPL-SN-508801 US-PATENT-CLASS-73-144 US-PATENT-3,381,527
N71-21475*	c 11	NASA-CASE-XLA-05378 US-PATENT-APPL-SN-484156 US-PATENT-CLASS-73-343 US-PATENT-3,331,246	N71-21881*	c 31	NASA-CASE-XNP-02595 US-PATENT-APPL-SN-502709 US-PATENT-CLASS-244-1 US-PATENT-3,333,788	N71-22880*	c 21	NASA-CASE-XLA-00793 US-PATENT-APPL-SN-368334 US-PATENT-CLASS-88-1 US-PATENT-3,361,569
N71-21476*	c 07	NASA-CASE-XNP-00746 US-PATENT-APPL-SN-271824 US-PATENT-CLASS-235-181 US-PATENT-3,359,409	N71-21882*	c 23	NASA-CASE-XNP-03853 US-PATENT-APPL-SN-578931 US-PATENT-CLASS-88-24 US-PATENT-3,359,855	N71-22881*	c 23	NASA-CASE-XLE-04222 US-PATENT-APPL-SN-512559 US-PATENT-CLASS-220-9 US-PATENT-3,379,330
N71-21481*	c 11	NASA-CASE-XLA-01326 US-PATENT-APPL-SN-422097 US-PATENT-CLASS-73-147	N71-22705*	c 15	NASA-CASE-XGS-02884 US-PATENT-APPL-SN-432433 US-PATENT-CLASS-51-57	N71-22888*	c 09	NASA-CASE-XLA-03114 US-PATENT-APPL-SN-440039 US-PATENT-CLASS-343-708

N71-22890*	c 33	US-PATENT-3,373,430 NASA-CASE-XLA-07728 US-PATENT-APPL-SN-538908 US-PATENT-CLASS-165-96 US-PATENT-3,374,830	N71-22893*	c 14	US-PATENT-3,377,845 NASA-CASE-XMS-05385 US-PATENT-APPL-SN-515484 US-PATENT-CLASS-310-8.5 US-PATENT-3,387,149	N71-23037*	c 14	US-PATENT-3,383,903 NASA-CASE-XAC-01662 US-PATENT-APPL-SN-385520 US-PATENT-CLASS-324-117 US-PATENT-3,385,665
N71-22894*	c 18	NASA-CASE-XLE-03925 US-PATENT-APPL-SN-514407 US-PATENT-CLASS-75-204 US-PATENT-3,337,337	N71-22894*	c 15	NASA-CASE-XFR-05421 US-PATENT-APPL-SN-567686 US-PATENT-CLASS-24-128 US-PATENT-3,378,892	N71-23039*	c 14	NASA-CASE-XNP-01659 US-PATENT-APPL-SN-410332 US-PATENT-CLASS-138-230 US-PATENT-3,377,208
N71-22895*	c 16	NASA-CASE-XMS-04269 US-PATENT-APPL-SN-516793 US-PATENT-CLASS-250-199 US-PATENT-3,341,708	N71-22895*	c 14	NASA-CASE-XNP-08680 US-PATENT-APPL-SN-562444 US-PATENT-CLASS-73-9 US-PATENT-3,376,730	N71-23040*	c 14	NASA-CASE-XNP-05535 US-PATENT-APPL-SN-487939 US-PATENT-CLASS-244-1 US-PATENT-3,339,863
N71-22896*	c 05	NASA-CASE-XMS-02399 US-PATENT-APPL-SN-492344 US-PATENT-CLASS-128-2.06 US-PATENT-3,384,075	N71-22896*	c 14	NASA-CASE-XGS-01331 US-PATENT-APPL-SN-445807 US-PATENT-CLASS-250-218 US-PATENT-3,388,258	N71-23041*	c 14	NASA-CASE-XNP-01056 US-PATENT-APPL-SN-377146 US-PATENT-CLASS-250-41.9 US-PATENT-3,340,395
N71-22897*	c 08	NASA-CASE-XNP-01753 US-PATENT-APPL-SN-423412 US-PATENT-CLASS-235-92 US-PATENT-3,374,339	N71-22897*	c 15	NASA-CASE-XNP-01641 US-PATENT-APPL-SN-464885 US-PATENT-CLASS-308-10 US-PATENT-3,378,315	N71-23042*	c 11	NASA-CASE-XMS-02930 US-PATENT-APPL-SN-417253 US-PATENT-CLASS-250-52 US-PATENT-3,340,397
N71-22961*	c 10	NASA-CASE-XMS-02159 US-PATENT-APPL-SN-534564 US-PATENT-CLASS-323-56 US-PATENT-3,365,657	N71-22968*	c 18	NASA-CASE-XGS-02435 US-PATENT-APPL-SN-392965 US-PATENT-CLASS-106-40 US-PATENT-3,382,082	N71-23043*	c 26	NASA-CASE-XNP-01059 US-PATENT-APPL-SN-410330 US-PATENT-CLASS-136-89 US-PATENT-3,398,057
N71-22962*	c 10	NASA-CASE-XGS-05441 US-PATENT-APPL-SN-505321 US-PATENT-CLASS-328-233 US-PATENT-3,366,886	N71-22999*	c 09	NASA-CASE-XLA-00781 US-PATENT-APPL-SN-307271 US-PATENT-CLASS-88-14 US-PATENT-3,384,813	N71-23046*	c 17	NASA-CASE-XNP-04338 US-PATENT-APPL-SN-461765 US-PATENT-CLASS-28-182.2 US-PATENT-3,421,864
N71-22964*	c 14	NASA-CASE-XLE-02024 US-PATENT-APPL-SN-422099 US-PATENT-CLASS-73-15 US-PATENT-3,365,930	N71-23001*	c 07	NASA-CASE-XGS-01812 US-PATENT-APPL-SN-392973 US-PATENT-CLASS-340-174.1 US-PATENT-3,380,042	N71-23047*	c 18	NASA-CASE-XLA-01985 US-PATENT-APPL-SN-411945 US-PATENT-CLASS-148-8.16 US-PATENT-3,395,053
N71-22965*	c 14	NASA-CASE-XGS-02319 US-PATENT-APPL-SN-496205 US-PATENT-CLASS-73-117 US-PATENT-3,385,941	N71-23006*	c 03	NASA-CASE-XGS-02631 US-PATENT-APPL-SN-425972 US-PATENT-CLASS-138-133 US-PATENT-3,340,099	N71-23048*	c 15	NASA-CASE-XNP-03972 US-PATENT-APPL-SN-502710 US-PATENT-CLASS-184-1 US-PATENT-3,367,445
N71-22968*	c 31	NASA-CASE-XLA-02050 US-PATENT-APPL-SN-568067 US-PATENT-CLASS-244-1 US-PATENT-3,366,685	N71-23007*	c 02	NASA-CASE-XMF-04163 US-PATENT-APPL-SN-424156 US-PATENT-CLASS-73-189 US-PATENT-3,340,732	N71-23049*	c 15	NASA-CASE-XMF-01049 US-PATENT-APPL-SN-506137 US-PATENT-CLASS-339-5 US-PATENT-3,375,479
N71-22969*	c 31	NASA-CASE-XLA-03132 US-PATENT-APPL-SN-610728 US-PATENT-CLASS-244-1 US-PATENT-3,386,686	N71-23008*	c 31	NASA-CASE-XLA-04804 US-PATENT-APPL-SN-577546 US-PATENT-CLASS-102-49.5 US-PATENT-3,384,016	N71-23050*	c 15	NASA-CASE-XMF-01730 US-PATENT-APPL-SN-517869 US-PATENT-CLASS-228-8 US-PATENT-3,373,914
N71-22974*	c 03	NASA-CASE-XGS-02630 US-PATENT-APPL-SN-494287 US-PATENT-CLASS-136-132 US-PATENT-3,382,107	N71-23009*	c 31	NASA-CASE-XGS-02607 US-PATENT-APPL-SN-474531 US-PATENT-CLASS-244-1 US-PATENT-3,341,151	N71-23051*	c 15	NASA-CASE-XAC-01158 US-PATENT-APPL-SN-420250 US-PATENT-CLASS-137-625.5 US-PATENT-3,369,564
N71-22975*	c 06	NASA-CASE-XNP-07659 US-PATENT-APPL-SN-567806 US-PATENT-CLASS-18-26 US-PATENT-3,381,339	N71-23015*	c 09	NASA-CASE-XGS-02751 US-PATENT-APPL-SN-491059 US-PATENT-CLASS-307-288 US-PATENT-3,374,366	N71-23052*	c 15	NASA-CASE-XLA-03497 US-PATENT-APPL-SN-392992 US-PATENT-CLASS-156-285 US-PATENT-3,373,069
N71-22982*	c 15	NASA-CASE-XLA-02809 US-PATENT-APPL-SN-554897 US-PATENT-CLASS-308-176 US-PATENT-3,397,932	N71-23021*	c 09	NASA-CASE-XAC-02807 US-PATENT-APPL-SN-456581 US-PATENT-CLASS-324-120 US-PATENT-3,384,820	N71-23080*	c 05	NASA-CASE-XLE-02531 US-PATENT-APPL-SN-425096 US-PATENT-CLASS-312-1 US-PATENT-3,337,279
N71-22983*	c 28	NASA-CASE-XMF-06926 US-PATENT-APPL-SN-537615 US-PATENT-CLASS-60-258 US-PATENT-3,336,754	N71-23022*	c 15	NASA-CASE-XMS-01625 US-PATENT-APPL-SN-418933 US-PATENT-CLASS-138-88 US-PATENT-3,389,017	N71-23081*	c 28	NASA-CASE-XNP-02923 US-PATENT-APPL-SN-494280 US-PATENT-CLASS-60-202 US-PATENT-3,367,114
N71-22984*	c 07	NASA-CASE-XMS-04312 US-PATENT-APPL-SN-521754 US-PATENT-CLASS-343-708 US-PATENT-3,384,895	N71-23023*	c 15	NASA-CASE-XMF-04042 US-PATENT-APPL-SN-605518 US-PATENT-CLASS-55-204 US-PATENT-3,397,512	N71-23084*	c 10	NASA-CASE-XLA-01219 US-PATENT-APPL-SN-402978 US-PATENT-CLASS-332-1 US-PATENT-3,366,894
N71-22985*	c 09	NASA-CASE-XMF-03934 US-PATENT-APPL-SN-530958 US-PATENT-CLASS-250-83.3 US-PATENT-3,379,885	N71-23024*	c 15	NASA-CASE-XNP-01747 US-PATENT-APPL-SN-413661 US-PATENT-CLASS-251-148 US-PATENT-3,341,169	N71-23085*	c 33	NASA-CASE-XFR-03802 US-PATENT-APPL-SN-460877 US-PATENT-CLASS-73-190 US-PATENT-3,367,182
N71-22986*	c 10	NASA-CASE-XMF-01892 US-PATENT-APPL-SN-464878 US-PATENT-CLASS-328-167 US-PATENT-3,375,451	N71-23025*	c 15	NASA-CASE-XNP-08877 US-PATENT-APPL-SN-574282 US-PATENT-CLASS-82-6 US-PATENT-3,387,121	N71-23086*	c 15	NASA-CASE-XMS-04533 US-PATENT-APPL-SN-557016 US-PATENT-CLASS-202-234 US-PATENT-3,397,117
N71-22987*	c 09	NASA-CASE-XLE-04788 US-PATENT-APPL-SN-537617 US-PATENT-CLASS-313-352 US-PATENT-3,396,303	N71-23026*	c 07	NASA-CASE-XNP-02791 US-PATENT-APPL-SN-390251 US-PATENT-CLASS-178-6 US-PATENT-3,383,481	N71-23087*	c 14	NASA-CASE-XNP-03918 US-PATENT-APPL-SN-510475 US-PATENT-CLASS-73-88.5 US-PATENT-3,388,590
N71-22988*	c 09	NASA-CASE-XGS-03304 US-PATENT-APPL-SN-483886 US-PATENT-CLASS-73-1 US-PATENT-3,381,517	N71-23027*	c 09	NASA-CASE-XNP-01960 US-PATENT-APPL-SN-438135 US-PATENT-CLASS-29-572 US-PATENT-3,340,599	N71-23088*	c 18	NASA-CASE-XNP-00597 US-PATENT-APPL-SN-410325 US-PATENT-CLASS-65-7 US-PATENT-3,337,315
N71-22989*	c 14	NASA-CASE-XLA-01551 US-PATENT-APPL-SN-422092 US-PATENT-CLASS-73-190 US-PATENT-3,382,714	N71-23029*	c 10	NASA-CASE-XGS-03427 US-PATENT-APPL-SN-500446 US-PATENT-CLASS-307-285 US-PATENT-3,383,524	N71-23092*	c 14	NASA-CASE-XLA-01530 US-PATENT-APPL-SN-420466 US-PATENT-CLASS-188-1 US-PATENT-3,337,004
N71-22990*	c 14	NASA-CASE-XMS-04201 US-PATENT-APPL-SN-507254 US-PATENT-CLASS-324-70 US-PATENT-3,379,974	N71-23030*	c 11	NASA-CASE-XNP-03578 US-PATENT-APPL-SN-445292 US-PATENT-CLASS-73-147 US-PATENT-3,342,066	N71-23093*	c 14	NASA-CASE-XLE-03280 US-PATENT-APPL-SN-517156 US-PATENT-CLASS-73-400 US-PATENT-3,379,064
N71-22991*	c 14	NASA-CASE-XLA-01791 US-PATENT-APPL-SN-462763 US-PATENT-CLASS-250-227 US-PATENT-3,397,318	N71-23033*	c 10	NASA-CASE-XNP-01318 US-PATENT-APPL-SN-380965 US-PATENT-CLASS-340-174 US-PATENT-3,388,387	N71-23096*	c 05	NASA-CASE-XMS-06064 US-PATENT-APPL-SN-563846 US-PATENT-CLASS-2-14 US-PATENT-3,378,851
N71-22992*	c 14	NASA-CASE-XGS-01023 US-PATENT-APPL-SN-446131 US-PATENT-CLASS-73-65	N71-23036*	c 14	NASA-CASE-XNP-01660 US-PATENT-APPL-SN-578918 US-PATENT-CLASS-73-4	N71-23097*	c 09	NASA-CASE-XNP-02140 US-PATENT-APPL-SN-440036 US-PATENT-CLASS-330-61

N71-23098*	c 07	US-PATENT-3,337,812 NASA-CASE-XGS-00740 US-PATENT-APPL-SN-353844 US-PATENT-CLASS-325-305 US-PATENT-3,341,778	N71-23269*	c 14	US-PATENT-3,419,329 NASA-CASE-XLA-01584 US-PATENT-APPL-SN-416943 US-PATENT-CLASS-250-203 US-PATENT-3,389,260	N71-23544*	c 10	US-PATENT-3,393,347 NASA-CASE-XNP-05382 US-PATENT-APPL-SN-536217 US-PATENT-CLASS-332-19 US-PATENT-3,393,380
N71-23099*	c 10	NASA-CASE-XNP-08875 US-PATENT-APPL-SN-640455 US-PATENT-CLASS-343-6.5 US-PATENT-3,380,049	N71-23270*	c 09	NASA-CASE-XMS-04919 US-PATENT-APPL-SN-516155 US-PATENT-CLASS-307-263 US-PATENT-3,417,266	N71-23545*	c 09	NASA-CASE-XMF-04367 US-PATENT-APPL-SN-457874 US-PATENT-CLASS-307-235 US-PATENT-3,404,289
N71-23159*	c 05	NASA-CASE-XMF-06589 US-PATENT-APPL-SN-543206 US-PATENT-CLASS-5-82 US-PATENT-3,343,180	N71-23271*	c 10	NASA-CASE-XNP-00952 US-PATENT-APPL-SN-388967 US-PATENT-CLASS-317-148.5 US-PATENT-3,417,298	N71-23548*	c 09	NASA-CASE-XNP-06507 US-PATENT-APPL-SN-605099 US-PATENT-CLASS-333-98 US-PATENT-3,419,827
N71-23161*	c 05	NASA-CASE-XAC-07043 US-PATENT-APPL-SN-566397 US-PATENT-CLASS-2-2.1 US-PATENT-3,405,406	N71-23289*	c 21	NASA-CASE-XMF-01669 US-PATENT-APPL-SN-399419 US-PATENT-CLASS-74-5.47 US-PATENT-3,415,126	N71-23573*	c 09	NASA-CASE-XGS-01418 US-PATENT-APPL-SN-392969 US-PATENT-CLASS-333-73 US-PATENT-3,393,384
N71-23174*	c 14	NASA-CASE-XGS-02610 US-PATENT-APPL-SN-491054 US-PATENT-CLASS-321-60 US-PATENT-3,417,316	N71-23292*	c 26	NASA-CASE-XLE-10715 US-PATENT-APPL-SN-603397 US-PATENT-CLASS-252-62.3 US-PATENT-3,409,554	N71-23598*	c 09	NASA-CASE-XER-11019 US-PATENT-APPL-SN-711971 US-PATENT-CLASS-331-78 US-PATENT-3,470,489
N71-23175*	c 14	NASA-CASE-XKS-03509 US-PATENT-APPL-SN-566392 US-PATENT-CLASS-356-166 US-PATENT-3,414,358	N71-23293*	c 28	NASA-CASE-XNP-06942 US-PATENT-APPL-SN-563651 US-PATENT-CLASS-60-202 US-PATENT-3,412,559	N71-23599*	c 22	NASA-CASE-XLE-01903 US-PATENT-APPL-SN-466868 US-PATENT-CLASS-310-4 US-PATENT-3,393,330
N71-23185*	c 04	NASA-CASE-XAC-05422 US-PATENT-APPL-SN-483885 US-PATENT-CLASS-128-2.05 US-PATENT-3,412,729	N71-23295*	c 08	NASA-CASE-XNP-04819 US-PATENT-APPL-SN-502701 US-PATENT-CLASS-340-148.2 US-PATENT-3,390,378	N71-23654*	c 26	NASA-CASE-XLE-02798 US-PATENT-APPL-SN-660571 US-PATENT-CLASS-148-1.5 US-PATENT-3,390,020
N71-23187*	c 03	NASA-CASE-XGS-03390 US-PATENT-APPL-SN-551182 US-PATENT-CLASS-136-89 US-PATENT-3,419,433	N71-23311*	c 09	NASA-CASE-XGS-03632 US-PATENT-APPL-SN-502739 US-PATENT-CLASS-307-260 US-PATENT-3,390,282	N71-23658*	c 18	NASA-CASE-XLE-02647 US-PATENT-APPL-SN-430226 US-PATENT-CLASS-232-192 US-PATENT-3,392,864
N71-23188*	c 09	NASA-CASE-XMF-14301 US-PATENT-APPL-SN-697341 US-PATENT-CLASS-321-2 US-PATENT-3,470,446	N71-23315*	c 10	NASA-CASE-XLA-03356 US-PATENT-APPL-SN-536216 US-PATENT-CLASS-307-234 US-PATENT-3,448,290	N71-23662*	c 10	NASA-CASE-XGS-01118 US-PATENT-APPL-SN-408442 US-PATENT-CLASS-235-154 US-PATENT-3,399,299
N71-23189*	c 09	NASA-CASE-XNP-06028 US-PATENT-APPL-SN-649356 US-PATENT-CLASS-315-26 US-PATENT-3,431,460	N71-23316*	c 09	NASA-CASE-XMS-09352 US-PATENT-APPL-SN-564919 US-PATENT-CLASS-323-22 US-PATENT-3,417,321	N71-23663*	c 10	NASA-CASE-XKS-04631 US-PATENT-APPL-SN-663180 US-PATENT-CLASS-200-82 US-PATENT-3,433,909
N71-23190*	c 09	NASA-CASE-XLE-04501 US-PATENT-APPL-SN-522794 US-PATENT-CLASS-313-231 US-PATENT-3,413,510	N71-23317*	c 05	NASA-CASE-XMS-06061 US-PATENT-APPL-SN-605092 US-PATENT-CLASS-307-260 US-PATENT-3,467,837	N71-23669*	c 10	NASA-CASE-XAC-10607 US-PATENT-APPL-SN-694345 US-PATENT-CLASS-331-111 US-PATENT-3,470,495
N71-23191*	c 09	NASA-CASE-XMS-05890 US-PATENT-APPL-SN-650166 US-PATENT-CLASS-137-554 US-PATENT-3,414,012	N71-23336*	c 03	NASA-CASE-XGS-01513 US-PATENT-APPL-SN-502756 US-PATENT-CLASS-136-166 US-PATENT-3,390,017	N71-23698*	c 14	NASA-CASE-XGS-08259 US-PATENT-APPL-SN-666551 US-PATENT-CLASS-242-182 US-PATENT-3,460,781
N71-23225*	c 14	NASA-CASE-XNP-04817 US-PATENT-APPL-SN-516152 US-PATENT-CLASS-73-12 US-PATENT-3,412,598	N71-23354*	c 03	NASA-CASE-XLE-04535 US-PATENT-APPL-SN-588671 US-PATENT-CLASS-250-212 US-PATENT-3,437,818	N71-23699*	c 14	NASA-CASE-XMF-10289 US-PATENT-APPL-SN-674356 US-PATENT-CLASS-324-72 US-PATENT-3,470,466
N71-23226*	c 14	NASA-CASE-XNP-06509 US-PATENT-APPL-SN-570095 US-PATENT-CLASS-73-194 US-PATENT-3,411,356	N71-23365*	c 17	NASA-CASE-XNP-03063 US-PATENT-APPL-SN-521994 US-PATENT-CLASS-75-172 US-PATENT-3,413,115	N71-23710*	c 18	NASA-CASE-XLE-08511 US-PATENT-APPL-SN-635972 US-PATENT-CLASS-29-182.1 US-PATENT-3,419,363
N71-23227*	c 14	NASA-CASE-XMF-06515 US-PATENT-APPL-SN-548808 US-PATENT-CLASS-73-432 US-PATENT-3,408,870	N71-23401*	c 14	NASA-CASE-XGS-03230 US-PATENT-APPL-SN-517158 US-PATENT-CLASS-250-83 US-PATENT-3,419,992	N71-23723*	c 30	NASA-CASE-XNP-09832 US-PATENT-APPL-SN-632163 US-PATENT-CLASS-343-100 US-PATENT-3,417,399
N71-23230*	c 06	NASA-CASE-XMF-06409 US-PATENT-APPL-SN-575930 US-PATENT-CLASS-260-448.2 US-PATENT-3,433,818	N71-23405*	c 07	NASA-CASE-XGS-01537 US-PATENT-APPL-SN-432026 US-PATENT-CLASS-325-163 US-PATENT-3,417,332	N71-23725*	c 14	NASA-CASE-XGS-01013 US-PATENT-APPL-SN-665209 US-PATENT-CLASS-73-133 US-PATENT-3,460,381
N71-23239*	c 03	NASA-CASE-XMF-08217 US-PATENT-APPL-SN-688807 US-PATENT-CLASS-321-2 US-PATENT-3,470,443	N71-23443*	c 09	NASA-CASE-XLE-02823 US-PATENT-APPL-SN-491058 US-PATENT-CLASS-310-10 US-PATENT-3,393,332	N71-23726*	c 14	NASA-CASE-XMF-05224 US-PATENT-APPL-SN-660842 US-PATENT-CLASS-73-189 US-PATENT-3,465,584
N71-23240*	c 14	NASA-CASE-XLA-00941 US-PATENT-APPL-SN-508873 US-PATENT-CLASS-250-227 US-PATENT-3,407,304	N71-23449*	c 03	NASA-CASE-XLE-08569 US-PATENT-APPL-SN-641420 US-PATENT-CLASS-136-89 US-PATENT-3,472,698	N71-23755*	c 14	NASA-CASE-XMF-04134 US-PATENT-APPL-SN-610723 US-PATENT-CLASS-73-4 US-PATENT-3,472,059
N71-23248*	c 17	NASA-CASE-XLE-03829 US-PATENT-APPL-SN-554950 US-PATENT-CLASS-75-170 US-PATENT-3,415,643	N71-23497*	c 01	NASA-CASE-XLA-01486 US-PATENT-APPL-SN-484485 US-PATENT-CLASS-244-13 US-PATENT-3,392,936	N71-23790*	c 14	NASA-CASE-XAC-04885 US-PATENT-APPL-SN-573432 US-PATENT-CLASS-73-141 US-PATENT-3,415,116
N71-23254*	c 15	NASA-CASE-XFR-05302 US-PATENT-APPL-SN-685463 US-PATENT-CLASS-85-7 US-PATENT-3,443,472	N71-23499*	c 06	NASA-CASE-XNP-03835 US-PATENT-APPL-SN-456874 US-PATENT-CLASS-44-77 US-PATENT-3,393,059	N71-23797*	c 14	NASA-CASE-XNP-06510 US-PATENT-APPL-SN-562445 US-PATENT-CLASS-250-203 US-PATENT-3,417,247
N71-23255*	c 15	NASA-CASE-XMS-07487 US-PATENT-APPL-SN-580365 US-PATENT-CLASS-244-83 US-PATENT-3,409,252	N71-23500*	c 06	NASA-CASE-XNP-03250 US-PATENT-APPL-SN-485058 US-PATENT-CLASS-260-85.5 US-PATENT-3,419,537	N71-23798* #	c 15	NASA-CASE-XMF-02330 US-PATENT-APPL-SN-608944 US-PATENT-CLASS-219-130 US-PATENT-3,469,069
N71-23256*	c 15	NASA-CASE-XMF-03290 US-PATENT-APPL-SN-479353 US-PATENT-CLASS-53-22 US-PATENT-3,415,032	N71-23525*	c 09	NASA-CASE-XGS-02317 US-PATENT-APPL-SN-576183 US-PATENT-CLASS-328-61 US-PATENT-3,464,018	N71-23809*	c 15	NASA-CASE-XAC-10019 US-PATENT-APPL-SN-686209 US-PATENT-CLASS-74-89.18 US-PATENT-3,472,086
N71-23267*	c 14	NASA-CASE-XLE-04026 US-PATENT-APPL-SN-617770 US-PATENT-CLASS-13-26 US-PATENT-3,470,304	N71-23527*	c 06	NASA-CASE-XLE-01997 US-PATENT-APPL-SN-427990 US-PATENT-CLASS-23-230 US-PATENT-3,472,625	N71-23810*	c 15	NASA-CASE-XLE-05033 US-PATENT-APPL-SN-510474 US-PATENT-CLASS-252-12 US-PATENT-3,466,243
N71-23268*	c 14	NASA-CASE-XLA-01907 US-PATENT-APPL-SN-335441 US-PATENT-CLASS-356-72	N71-23543*	c 10	NASA-CASE-XMS-00913 US-PATENT-APPL-SN-416945 US-PATENT-CLASS-317-31	N71-23811*	c 15	NASA-CASE-XNP-05297 US-PATENT-APPL-SN-640458 US-PATENT-CLASS-72-354



N71-23812*	c 15	US-PATENT-3,443,412	N71-24232*	c 14	US-PATENT-3,434,855	N71-24623*	c 05	US-PATENT-CLASS-324-77
		NASA-CASE-XMF-07808			NASA-CASE-XAC-04458			US-PATENT-3,548,107
		US-PATENT-APPL-SN-684178			US-PATENT-APPL-SN-534975			NASA-CASE-XMS-09635
N71-23815*	c 15	US-PATENT-CLASS-308-2	N71-24233*	c 14	US-PATENT-CLASS-73-400	N71-24624*	c 07	US-PATENT-APPL-SN-586329
		US-PATENT-3,463,563			US-PATENT-3,392,586			US-PATENT-CLASS-2-2.1
		NASA-CASE-XMF-07069			NASA-CASE-XGS-04478			US-PATENT-3,516,091
N71-23816*	c 15	US-PATENT-APPL-SN-672382	N71-24234*	c 14	US-PATENT-APPL-SN-566717	N71-24625*	c 07	NASA-CASE-GSC-10131-1
		US-PATENT-CLASS-219-125			US-PATENT-CLASS-73-88.5			US-PATENT-APPL-SN-754055
		US-PATENT-3,469,068			US-PATENT-3,460,378			US-PATENT-CLASS-340-172.5
N71-23817*	c 15	NASA-CASE-XLE-03803	N71-24276*	c 33	NASA-CASE-XMF-10968	N71-24626*	c 08	US-PATENT-3,546,884
		US-PATENT-APPL-SN-505765			US-PATENT-APPL-SN-644447			NASA-CASE-XMS-09610
		US-PATENT-CLASS-220-9			US-PATENT-CLASS-73-15.6			US-PATENT-APPL-SN-766170
N71-23828*	c 17	US-PATENT-3,392,865	N71-24276*	c 33	US-PATENT-3,469,437	N71-24633*	c 08	US-PATENT-CLASS-343-113
		NASA-CASE-XLE-06773			NASA-CASE-XLA-02059			US-PATENT-3,540,054
		US-PATENT-APPL-SN-646124			US-PATENT-APPL-SN-576182			NASA-CASE-NPO-10567
N71-23912*	c 31	US-PATENT-CLASS-72-467	N71-24285*	c 32	US-PATENT-CLASS-165-12	N71-24639*	c 08	US-PATENT-APPL-SN-679055
		US-PATENT-3,469,436			US-PATENT-3,406,742			US-PATENT-CLASS-235-153
		NASA-CASE-XMF-02303			NASA-CASE-XMF-02392			US-PATENT-3,517,171
N71-23968*	c 28	US-PATENT-APPL-SN-453229	N71-24315*	c 31	US-PATENT-APPL-SN-596735	N71-24650*	c 08	NASA-CASE-NPO-10150
		US-PATENT-CLASS-148-6.20			US-PATENT-CLASS-73-49.2			US-PATENT-APPL-SN-660843
		US-PATENT-3,416,975			US-PATENT-3,399,574			US-PATENT-CLASS-340-347
N71-23971*	c 32	NASA-CASE-XMF-05941	N71-24321*	c 28	NASA-CASE-XLA-04901	N71-24679*	c 15	US-PATENT-3,537,103
		US-PATENT-APPL-SN-653277			US-PATENT-APPL-SN-586325			NASA-CASE-XNP-10475
		US-PATENT-CLASS-244-1			US-PATENT-CLASS-244-1			US-PATENT-APPL-SN-763868
N71-23976*	c 23	US-PATENT-3,443,773	N71-24583*	c 07	US-PATENT-CLASS-329-140	N71-24692*	c 12	US-PATENT-APPL-SN-679055
		NASA-CASE-XLE-04857			US-PATENT-3,405,887			US-PATENT-CLASS-72-369
		US-PATENT-APPL-SN-621742			NASA-CASE-XNP-03692			US-PATENT-3,546,917
N71-24035*	c 31	US-PATENT-CLASS-239-127.1	N71-24595*	c 09	US-PATENT-APPL-SN-640787	N71-24681*	c 03	NASA-CASE-XLE-08569-2
		US-PATENT-3,460,759			US-PATENT-CLASS-60-263			US-PATENT-APPL-SN-829825
		NASA-CASE-XAC-05632			US-PATENT-3,443,384			US-PATENT-CLASS-29-572
N71-24042*	c 15	US-PATENT-APPL-SN-568355	N71-24596*	c 09	NASA-CASE-NPO-10096	N71-24694*	c 15	US-PATENT-3,541,679
		US-PATENT-CLASS-244-77			US-PATENT-APPL-SN-730700			NASA-CASE-XFR-02007
		US-PATENT-3,412,961			US-PATENT-CLASS-329-140			US-PATENT-APPL-SN-378080
N71-24043*	c 15	US-PATENT-3,412,961	N71-24597*	c 09	US-PATENT-3,533,001	N71-24695*	c 15	US-PATENT-CLASS-73-389
		NASA-CASE-XLA-01987			NASA-CASE-GSC-10021-1			US-PATENT-3,273,399
		US-PATENT-APPL-SN-542713			US-PATENT-APPL-SN-790420			NASA-CASE-XMF-04415
N71-24044*	c 15	US-PATENT-CLASS-346-107	N71-24599*	c 15	US-PATENT-CLASS-343-7.5	N71-24696*	c 15	US-PATENT-APPL-SN-644446
		US-PATENT-3,392,403			US-PATENT-3,540,045			US-PATENT-CLASS-33-174
		NASA-CASE-XLA-01027			NASA-CASE-XNP-01306-2			US-PATENT-3,360,864
N71-24045*	c 15	US-PATENT-APPL-SN-494283	N71-24599*	c 15	US-PATENT-APPL-SN-684083	N71-24696*	c 15	NASA-CASE-GSC-10306-1
		US-PATENT-CLASS-52-272			US-PATENT-CLASS-328-133			US-PATENT-APPL-SN-789278
		US-PATENT-3,416,274			US-PATENT-3,509,475			US-PATENT-CLASS-248-358
N71-24046*	c 15	US-PATENT-APPL-SN-534966	N71-24599*	c 15	NASA-CASE-ARC-10132-1	N71-24695*	c 15	US-PATENT-3,537,872
		US-PATENT-CLASS-103-48			US-PATENT-APPL-SN-759460			NASA-CASE-XNP-06936
		US-PATENT-3,367,271			US-PATENT-CLASS-73-398			US-PATENT-APPL-SN-640786
N71-24047*	c 15	US-PATENT-3,367,271	N71-24599*	c 15	US-PATENT-3,545,275	N71-24695*	c 15	US-PATENT-CLASS-318-382
		NASA-CASE-XKS-03338			US-PATENT-CLASS-3545,275			US-PATENT-3,487,281
		US-PATENT-APPL-SN-547072			US-PATENT-APPL-SN-770371			NASA-CASE-NPO-10173
N71-24048*	c 15	US-PATENT-CLASS-89-1.806	N71-24599*	c 15	US-PATENT-CLASS-254-150	N71-24696*	c 15	US-PATENT-APPL-SN-796360
		US-PATENT-3,415,156			US-PATENT-CLASS-254-173			US-PATENT-CLASS-310-101
		NASA-CASE-XMF-06888			US-PATENT-CLASS-254-186			US-PATENT-3,535,570
N71-24049*	c 15	US-PATENT-APPL-SN-591000	N71-24600*	c 15	US-PATENT-3,545,725	N71-24717*	c 09	NASA-CASE-XMF-08804
		US-PATENT-CLASS-62-40			NASA-CASE-XGS-08718			US-PATENT-APPL-SN-683606
		US-PATENT-3,415,069			US-PATENT-APPL-SN-785611			US-PATENT-CLASS-324-181
N71-24050*	c 15	NASA-CASE-XGS-04548	N71-24600*	c 15	US-PATENT-CLASS-244-1	N71-24718*	c 03	US-PATENT-3,543,159
		US-PATENT-APPL-SN-672383			US-PATENT-CLASS-244-150			NASA-CASE-MSC-10960-1
		US-PATENT-CLASS-74-100			US-PATENT-CLASS-74-2			US-PATENT-APPL-SN-751198
N71-24051*	c 15	US-PATENT-3,460,397	N71-24605*	c 03	US-PATENT-CLASS-89-1.5	N71-24719*	c 03	US-PATENT-CLASS-204-305
		NASA-CASE-XLE-10337			US-PATENT-CLASS-9-9			US-PATENT-3,547,801
		US-PATENT-APPL-SN-594633			US-PATENT-3,540,676			NASA-CASE-GSC-10487-1
N71-24052*	c 15	US-PATENT-CLASS-252-26	N71-24605*	c 03	NASA-CASE-XNP-04758	N71-24725*	c 23	US-PATENT-APPL-SN-828983
		US-PATENT-3,391,080			US-PATENT-APPL-SN-557861			US-PATENT-CLASS-320-39
		NASA-CASE-XGS-03120			US-PATENT-CLASS-320-17			US-PATENT-3,541,422
N71-24053*	c 15	US-PATENT-APPL-SN-485958	N71-24606*	c 05	US-PATENT-3,413,536	N71-24726*	c 05	NASA-CASE-GSC-10188-1
		US-PATENT-CLASS-156-3			NASA-CASE-XKS-10804			US-PATENT-APPL-SN-791888
		US-PATENT-3,470,043			US-PATENT-APPL-SN-691909			US-PATENT-CLASS-62-384
N71-24054*	c 16	NASA-CASE-XLA-03375	N71-24606*	c 05	US-PATENT-CLASS-35-17	N71-24727*	c 05	US-PATENT-3,545,226
		US-PATENT-APPL-SN-512562			US-PATENT-3,508,347			NASA-CASE-MSC-12243-1
		US-PATENT-CLASS-356-104			NASA-CASE-XNP-09699			US-PATENT-APPL-SN-857445
N71-24055*	c 17	US-PATENT-3,446,558	N71-24607*	c 06	US-PATENT-APPL-SN-711972	N71-24728*	c 05	US-PATENT-CLASS-244-1
		NASA-CASE-XLE-06969			US-PATENT-CLASS-73-17			US-PATENT-3,537,668
		US-PATENT-APPL-SN-655675			US-PATENT-3,546,920			NASA-CASE-MSC-13282-1
N71-24056*	c 15	US-PATENT-CLASS-148-126	N71-24612*	c 07	NASA-CASE-XMF-06092	N71-24729*	c 05	US-PATENT-APPL-SN-8498
		US-PATENT-3,463,679			US-PATENT-APPL-SN-550088			US-PATENT-CLASS-128-2.1
		NASA-CASE-XLE-03432			US-PATENT-CLASS-178-7.1			US-PATENT-3,548,812
N71-24057*	c 33	US-PATENT-APPL-SN-559349	N71-24613*	c 07	US-PATENT-3,470,318	N71-24730*	c 05	NASA-CASE-XMS-09637-1
		US-PATENT-CLASS-13-35			NASA-CASE-NPO-10851			US-PATENT-APPL-SN-785710
		US-PATENT-3,409,730			US-PATENT-APPL-SN-805406			US-PATENT-CLASS-2-2.1
N71-24058*	c 05	NASA-CASE-XMS-10269	N71-24614*	c 07	US-PATENT-CLASS-325-325	N71-24731*	c 28	US-PATENT-3,537,107
		US-PATENT-APPL-SN-590158			US-PATENT-3,551,816			NASA-CASE-XLE-03157
		US-PATENT-CLASS-165-46			NASA-CASE-XKS-09340			US-PATENT-APPL-SN-591014
N71-24059*	c 15	US-PATENT-3,425,486	N71-24614*	c 07	US-PATENT-APPL-SN-666555	N71-24732*	c 05	US-PATENT-CLASS-60-240
		NASA-CASE-XLA-01494			US-PATENT-CLASS-343-703			US-PATENT-3,408,816
		US-PATENT-APPL-SN-499122			US-PATENT-3,540,056			NASA-CASE-ARC-10100-1
N71-24060*	c 16	US-PATENT-CLASS-156-545	N71-24618*	c 09	NASA-CASE-FRC-10029	N71-24738*	c 05	US-PATENT-APPL-SN-797058
		US-PATENT-3,416,988			US-PATENT-APPL-SN-760389			US-PATENT-CLASS-128-24
		NASA-CASE-XLA-04295			US-PATENT-CLASS-128-2.06			US-PATENT-CLASS-128-25
N71-24170*	c 16	US-PATENT-APPL-SN-546149	N71-24621*	c 07	US-PATENT-3,547,105	N71-24739*	c 06	US-PATENT-3,550,585
		US-PATENT-CLASS-356-107			NASA-CASE-GSC-10118-1			NASA-CASE-ARC-10098-1
		US-PATENT-3,468,609			US-PATENT-APPL-SN-783375			US-PATENT-APPL-SN-702967
N71-24183*	c 18	NASA-CASE-XGS-04799	N71-24622*	c 07	US-PATENT-CLASS-179-15	N71-24740*	c 06	US-PATENT-CLASS-260-2.5
		US-PATENT-APPL-SN-452944			US-PATENT-CLASS-325-4			US-PATENT-3,549,564
		US-PATENT-CLASS-106-84			US-PATENT-CLASS-343-100			NASA-CASE-XMF-03074
N71-24184*	c 18	US-PATENT-3,416,939	N71-24622*	c 07	US-PATENT-3,546,386	N71-24741*	c 07	US-PATENT-APPL-SN-593595
		NASA-CASE-XNP-02139			NASA-CASE-NPO-10388			US-PATENT-CLASS-260-72.5
		US-PATENT-APPL-SN-430777			US-PATENT-APPL-SN-725432			US-PATENT-3,516,971
		US-PATENT-CLASS-106-84			US-PATENT-CLASS-179-15			NASA-CASE-NPO-10118

		US-PATENT-APPL-SN-704485			US-PATENT-APPL-SN-698630	N71-24910*	c 15	NASA-CASE-ERC-10045
		US-PATENT-CLASS-235-152			US-PATENT-CLASS-333-83			US-PATENT-APPL-SN-763885
		US-PATENT-3,541,314			US-PATENT-3,541,479			US-PATENT-CLASS-73-40.7
N71-24742*	c 07	NASA-CASE-NPO-10140	N71-24842*	c 09	NASA-CASE-MSC-12209	N71-24911*	c 17	US-PATENT-3,548,836
		US-PATENT-APPL-SN-691737			US-PATENT-APPL-SN-881039			NASA-CASE-XLE-04948
		US-PATENT-CLASS-187-7.1			US-PATENT-CLASS-343-797			US-PATENT-APPL-SN-605083
		US-PATENT-3,541,250			US-PATENT-3,548,705			US-PATENT-CLASS-118-308
N71-24750*	c 31	NASA-CASE-XGS-01654	N71-24843*	c 09	NASA-CASE-XMF-06817			US-PATENT-3,472,202
		US-PATENT-APPL-SN-434148			US-PATENT-APPL-SN-656893	N71-24934*	c 18	NASA-CASE-NPO-10051
		US-PATENT-CLASS-102-50			US-PATENT-CLASS-324-71			US-PATENT-APPL-SN-711898
		US-PATENT-3,282,541			US-PATENT-3,541,439			US-PATENT-CLASS-73-38
N71-24798*	c 10	NASA-CASE-XLE-03061-1	N71-24844*	c 10	NASA-CASE-NPO-10169			US-PATENT-3,548,833
		US-PATENT-APPL-SN-832152			US-PATENT-APPL-SN-701733	N71-24948*	c 21	NASA-CASE-ERC-10090
		US-PATENT-CLASS-340-412			US-PATENT-CLASS-328-171			US-PATENT-APPL-SN-811542
		US-PATENT-3,546,894			US-PATENT-3,541,459			US-PATENT-CLASS-343-112
N71-24799*	c 10	NASA-CASE-XNP-06505	N71-24857*	c 23	NASA-CASE-XMS-06058-1			US-PATENT-3,550,129
		US-PATENT-APPL-SN-562833			US-PATENT-APPL-SN-532006	N71-24964*	c 11	NASA-CASE-NPO-10141
		US-PATENT-CLASS-307-254			US-PATENT-CLASS-350-189			US-PATENT-APPL-SN-673227
		US-PATENT-3,501,648			US-PATENT-3,472,577			US-PATENT-CLASS-82-55.5
N71-24800*	c 09	NASA-CASE-ERC-10075	N71-24858*	c 33	NASA-CASE-MFS-14253			US-PATENT-3,443,390
		US-PATENT-APPL-SN-775870			US-PATENT-APPL-SN-709622	N71-24984*	c 15	NASA-CASE-MFS-14971
		US-PATENT-CLASS-321-45			US-PATENT-CLASS-161-69			US-PATENT-APPL-SN-827579
		US-PATENT-3,539,905			US-PATENT-3,551,286			US-PATENT-CLASS-74-488
N71-24803*	c 09	NASA-CASE-NPO-10242	N71-24861*	c 10	NASA-CASE-XMF-05195			US-PATENT-3,541,875
		US-PATENT-APPL-SN-749181			US-PATENT-APPL-SN-785595	N71-24985*	c 11	NASA-CASE-KSC-10126
		US-PATENT-CLASS-307-88			US-PATENT-CLASS-318-599			US-PATENT-APPL-SN-845973
		US-PATENT-3,541,346			US-PATENT-3,523,228			US-PATENT-CLASS-73-15
N71-24804*	c 09	NASA-CASE-GSC-10299-1	N71-24862*	c 10	NASA-CASE-FRC-10010			US-PATENT-3,545,252
		US-PATENT-APPL-SN-836387			US-PATENT-APPL-SN-771937	N71-25139*	c 10	NASA-CASE-MFS-10068
		US-PATENT-CLASS-343-100			US-PATENT-CLASS-307-235			US-PATENT-APPL-SN-700541
		US-PATENT-3,540,050			US-PATENT-3,543,050			US-PATENT-CLASS-321-9
N71-24805*	c 09	NASA-CASE-XMF-06892	N71-24863*	c 10	NASA-CASE-XMF-02966			US-PATENT-3,487,288
		US-PATENT-APPL-SN-757875			US-PATENT-APPL-SN-560968	N71-25213*	c 28	NASA-CASE-GSC-10709-1
		US-PATENT-CLASS-318-318			US-PATENT-CLASS-324-70			US-PATENT-APPL-SN-791288
		US-PATENT-3,546,553			US-PATENT-3,406,336			US-PATENT-CLASS-60-202
N71-24806*	c 09	NASA-CASE-NPO-10188	N71-24864*	c 14	NASA-CASE-XLE-04503			US-PATENT-3,545,208
		US-PATENT-APPL-SN-723804			US-PATENT-APPL-SN-606463	N71-25351*	c 33	NASA-CASE-MFS-14023
		US-PATENT-CLASS-328-165			US-PATENT-CLASS-250-225			US-PATENT-APPL-SN-795217
		US-PATENT-3,550,023			US-PATENT-3,548,471			US-PATENT-CLASS-161-161
N71-24807*	c 09	NASA-CASE-MFS-14114-2	N71-24865*	c 15	NASA-CASE-XMF-05114-3			US-PATENT-CLASS-220-9
		US-PATENT-APPL-SN-854815			US-PATENT-APPL-SN-837378			US-PATENT-CLASS-52-249
		US-PATENT-CLASS-165-105			US-PATENT-CLASS-72-56			US-PATENT-CLASS-52-404
		US-PATENT-CLASS-165-107			US-PATENT-3,540,250			US-PATENT-CLASS-62-45
		US-PATENT-CLASS-165-138	N71-24866*	c 23	NASA-CASE-ERC-10001			US-PATENT-3,540,615
		US-PATENT-CLASS-310-4			US-PATENT-APPL-SN-712089	N71-25353*	c 33	NASA-CASE-MFS-20355
		US-PATENT-3,537,515			US-PATENT-CLASS-350-310			US-PATENT-APPL-SN-845974
N71-24808*	c 09	NASA-CASE-XNP-08880			US-PATENT-3,540,802			US-PATENT-CLASS-165-104
		US-PATENT-APPL-SN-605094	N71-24875*	c 15	NASA-CASE-XLA-06199			US-PATENT-CLASS-165-105
		US-PATENT-CLASS-333-88			US-PATENT-APPL-SN-702911			US-PATENT-CLASS-165-133
		US-PATENT-3,416,106			US-PATENT-CLASS-148-6.11			US-PATENT-CLASS-219-378
N71-24809*	c 14	NASA-CASE-XNP-08961			US-PATENT-3,540,942			US-PATENT-CLASS-219-530
		US-PATENT-APPL-SN-661170	N71-24876*	c 33	NASA-CASE-XNP-05524			US-PATENT-CLASS-244-1
		US-PATENT-CLASS-250-84			US-PATENT-APPL-SN-250567			US-PATENT-3,548,930
		US-PATENT-3,487,216			US-PATENT-CLASS-165-2	N71-25360*	c 32	NASA-CASE-XLA-08530
N71-24813*	c 31	NASA-CASE-XAC-06029-1			US-PATENT-3,270,802			US-PATENT-APPL-SN-808577
		US-PATENT-APPL-SN-588651	N71-24890*	c 08	NASA-CASE-KKS-08167			US-PATENT-CLASS-73-90
		US-PATENT-CLASS-343-100			US-PATENT-APPL-SN-649076			US-PATENT-3,546,931
		US-PATENT-3,540,048			US-PATENT-CLASS-235-155	N71-25434*	c 31	NASA-CASE-MSC-13047-1
N71-24828*	c 16	NASA-CASE-XAC-10770-1			US-PATENT-3,535,497			US-PATENT-APPL-SN-850586
		US-PATENT-APPL-SN-690997	N71-24891*	c 08	NASA-CASE-XNP-08759			US-PATENT-CLASS-244-1
		US-PATENT-CLASS-356-28			US-PATENT-APPL-SN-606462			US-PATENT-CLASS-244-113
		US-PATENT-3,547,540			US-PATENT-CLASS-235-92			US-PATENT-CLASS-244-138
N71-24830*	c 17	NASA-CASE-XNP-04148	N71-24892*	c 09	US-PATENT-3,541,312			US-PATENT-3,547,378
		US-PATENT-APPL-SN-538210			NASA-CASE-NPO-10716	N71-25490*	c 26	NASA-CASE-ERC-10088
		US-PATENT-CLASS-204-38			US-PATENT-APPL-SN-851394			US-PATENT-APPL-SN-760927
		US-PATENT-3,472,742			US-PATENT-CLASS-307-104			US-PATENT-CLASS-73-141
N71-24831*	c 16	NASA-CASE-NPO-10548			US-PATENT-CLASS-317-123			US-PATENT-3,537,305
		US-PATENT-APPL-SN-775072			US-PATENT-CLASS-317-148.5	N71-25555*	c 24	NASA-CASE-XNP-09469
		US-PATENT-CLASS-330-4			US-PATENT-3,549,955			US-PATENT-APPL-SN-645573
		US-PATENT-3,486,123	N71-24893*	c 09	NASA-CASE-ERC-10125			US-PATENT-CLASS-204-168
N71-24832*	c 16	NASA-CASE-ERC-10178			US-PATENT-APPL-SN-773029			US-PATENT-3,540,989
		US-PATENT-APPL-SN-800973			US-PATENT-CLASS-323-56	N71-25865*	c 10	NASA-CASE-KSC-10002
		US-PATENT-CLASS-331-94.5			US-PATENT-3,541,428			US-PATENT-APPL-SN-782956
N71-24833*	c 15	US-PATENT-3,550,034	N71-24895*	c 15	NASA-CASE-XLA-07473			US-PATENT-CLASS-178-69.5
		NASA-CASE-XMF-03793			US-PATENT-APPL-SN-839935			US-PATENT-3,567,861
		US-PATENT-APPL-SN-453225			US-PATENT-CLASS-318-265	N71-25866*	c 09	NASA-CASE-ARC-10003-1
		US-PATENT-CLASS-72-56			US-PATENT-3,546,552			US-PATENT-APPL-SN-717822
		US-PATENT-3,360,972	N71-24896*	c 15	NASA-CASE-ERC-10034			US-PATENT-CLASS-178-66
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N72-21483* #	c 15	NASA-CASE-MFS-20413 US-PATENT-APPL-SN-69209 US-PATENT-CLASS-74-469 US-PATENT-3,620,095	N72-2196* #	c 09	NASA-CASE-ERC-10075-2 US-PATENT-APPL-SN-775870 US-PATENT-CLASS-321-14 US-PATENT-CLASS-321-19 US-PATENT-CLASS-321-2 US-PATENT-CLASS-321-25 US-PATENT-CLASS-323-56 US-PATENT-CLASS-323-89C US-PATENT-3,614,587	N72-22248* #	c 14	NASA-CASE-LAR-10498-1 US-PATENT-APPL-SN-12681 US-PATENT-CLASS-73-141A US-PATENT-3,611,798
N72-21484* #	c 15	NASA-CASE-ARC-10178-1 US-PATENT-APPL-SN-689583 US-PATENT-CLASS-324-57R US-PATENT-CLASS-324-64 US-PATENT-CLASS-324-71R US-PATENT-3,624,496	N72-2197* #	c 09	NASA-CASE-LEW-10433-1 US-PATENT-APPL-SN-849106 US-PATENT-CLASS-307-282 US-PATENT-CLASS-307-88MP US-PATENT-3,612,895	N72-22438* #	c 14	NASA-CASE-ARC-10263-1 US-PATENT-APPL-SN-882122 US-PATENT-CLASS-73-398C US-PATENT-3,620,083
N72-21485* #	c 15	NASA-CASE-GSC-10218-1 US-PATENT-APPL-SN-15022 US-PATENT-CLASS-141-23 US-PATENT-CLASS-195-127 US-PATENT-CLASS-222-135 US-PATENT-CLASS-222-309 US-PATENT-CLASS-222-71 US-PATENT-CLASS-23-253R US-PATENT-CLASS-23-259 US-PATENT-CLASS-73-425.6 US-PATENT-3,615,241	N72-2198* #	c 09	NASA-CASE-MFS-13687-2 US-PATENT-APPL-SN-80369 US-PATENT-CLASS-174-106R US-PATENT-CLASS-174-117FF US-PATENT-CLASS-174-36 US-PATENT-3,612,743	N72-22439* #	c 14	NASA-CASE-MFS-20890 US-PATENT-APPL-SN-103229 US-PATENT-CLASS-284-22 US-PATENT-CLASS-29-421 US-PATENT-CLASS-310-11 US-PATENT-CLASS-310-42 US-PATENT-3,626,218
N72-21486* #	c 15	NASA-CASE-NPO-10440 US-PATENT-APPL-SN-756834 US-PATENT-CLASS-204-130 US-PATENT-CLASS-204-59 US-PATENT-3,616,338	N72-2199* #	c 09	NASA-CASE-ERC-10222 US-PATENT-APPL-SN-832603 US-PATENT-CLASS-29-590 US-PATENT-3,621,565	N72-22440* #	c 14	NASA-CASE-ARC-10154-1 US-PATENT-APPL-SN-793771 US-PATENT-CLASS-73-67.2 US-PATENT-3,620,069
N72-21489* #	c 15	NASA-CASE-XLA-10470 US-PATENT-APPL-SN-219436	N72-2200* #	c 09	NASA-CASE-FRC-10036 US-PATENT-APPL-SN-872602 US-PATENT-CLASS-307-237 US-PATENT-CLASS-307-254 US-PATENT-CLASS-307-317 US-PATENT-CLASS-328-1 US-PATENT-CLASS-328-151 US-PATENT-CLASS-73-88.5 US-PATENT-3,621,285	N72-22441* #	c 14	NASA-CASE-NPO-11002 US-PATENT-APPL-SN-856328 US-PATENT-CLASS-350-19 US-PATENT-CLASS-350-23 US-PATENT-CLASS-350-26 US-PATENT-CLASS-350-35 US-PATENT-CLASS-350-38 US-PATENT-CLASS-350-49 US-PATENT-CLASS-350-52 US-PATENT-3,612,645
N72-21624* #	c 21	NASA-CASE-HON-10439 US-PATENT-APPL-SN-889551 US-PATENT-CLASS-244-1SA US-PATENT-3,637,170	N72-2201* #	c 09	NASA-CASE-LEW-10387 US-PATENT-APPL-SN-76889 US-PATENT-CLASS-307-223B US-PATENT-CLASS-307-241 US-PATENT-CLASS-307-252J US-PATENT-CLASS-307-252K US-PATENT-CLASS-307-284 US-PATENT-CLASS-307-304 US-PATENT-CLASS-307-317 US-PATENT-CLASS-326-106 US-PATENT-3,621,287	N72-22442* #	c 14	NASA-CASE-MFS-21629 US-PATENT-APPL-SN-612265 US-PATENT-CLASS-324-61 US-PATENT-CLASS-73-304 US-PATENT-3,639,835
N72-21701* #	c 26	NASA-CASE-ERC-10119 US-PATENT-APPL-SN-825258 US-PATENT-CLASS-307-299 US-PATENT-CLASS-317-234V US-PATENT-CLASS-317-235R US-PATENT-CLASS-331-107 US-PATENT-CLASS-332-31 US-PATENT-3,614,557	N72-2202* #	c 09	NASA-CASE-ARC-10136-1	N72-22443* #	c 14	NASA-CASE-XGS-03736 US-PATENT-APPL-SN-749320 US-PATENT-CLASS-252-300 US-PATENT-CLASS-96-90PC US-PATENT-3,639,250
N72-21893* #	c 31	NASA-CASE-KSC-10622-1 US-PATENT-APPL-SN-149983				N72-22444* #	c 14	NASA-CASE-LAR-10523-1 US-PATENT-APPL-SN-32665 US-PATENT-CLASS-250-203 US-PATENT-CLASS-350-16 US-PATENT-CLASS-350-52
N72-22041* #	c 03	NASA-CASE-NPO-10591 US-PATENT-APPL-SN-776185 US-PATENT-CLASS-29-572 US-PATENT-3,616,528						
N72-22042* #	c 03	NASA-CASE-NPO-10747 US-PATENT-APPL-SN-6618 US-PATENT-CLASS-138-89 US-PATENT-3,615,853						
N72-22092* #	c 05	NASA-CASE-ARC-10275-1 US-PATENT-APPL-SN-21644 US-PATENT-CLASS-2-2.1A US-PATENT-3,636,584						
N72-22093* #	c 05	NASA-CASE-MSC-12324-1 US-PATENT-APPL-SN-83384 US-PATENT-CLASS-128-295 US-PATENT-CLASS-4-110 US-PATENT-CLASS-4-99 US-PATENT-3,602,923						
N72-22107* #	c 06	NASA-CASE-NPO-10862 US-PATENT-APPL-SN-610815 US-PATENT-CLASS-260-877 US-PATENT-3,639,510						
N72-22127* #	c 07	NASA-CASE-NPO-10303 US-PATENT-APPL-SN-848776						

N72-22445* #	c 14	US-PATENT-3,647,276	N72-22771* #	c 28	US-PATENT-CLASS-60-202	N72-24753* #	c 25	US-PATENT-CLASS-264-92
		NASA-CASE-LAR-10184			US-PATENT-3,613,370			US-PATENT-3,658,974
		US-PATENT-APPL-SN-16808			NASA-CASE-LEW-10835-1			NASA-CASE-XNP-04167-2
		US-PATENT-CLASS-33-174S			US-PATENT-APPL-SN-67815			US-PATENT-APPL-SN-866442
N72-22482* #	c 15	US-PATENT-CLASS-350-86	N72-22772* #	c 28	US-PATENT-CLASS-60-202	N72-25019* #	c 03	US-PATENT-CLASS-313-186
		US-PATENT-3,620,595			US-PATENT-3,620,018			US-PATENT-CLASS-313-212
		NASA-CASE-XLA-04897			NASA-CASE-NPO-12072			US-PATENT-CLASS-313-224
		US-PATENT-APPL-SN-880249			US-PATENT-APPL-SN-82647			US-PATENT-CLASS-313-231
N72-22483* #	c 15	US-PATENT-CLASS-73-133	N72-22874* #	c 31	US-PATENT-CLASS-123-122AB	N72-25020* #	c 03	US-PATENT-CLASS-315-111
		US-PATENT-3,613,457			US-PATENT-CLASS-137-81.5			US-PATENT-CLASS-315-326
		NASA-CASE-XNP-09770-2			US-PATENT-CLASS-261-145			US-PATENT-CLASS-315-358
		US-PATENT-APPL-SN-864039			US-PATENT-3,640,256			US-PATENT-CLASS-331-94.5
N72-22484* #	c 15	US-PATENT-CLASS-209-349	N72-23048* #	c 03	US-PATENT-CLASS-307-252R	N72-25119* #	c 05	US-PATENT-3,617,804
		US-PATENT-3,615,021			US-PATENT-APPL-SN-10883			NASA-CASE-NPO-10575
		NASA-CASE-LAR-10031			US-PATENT-CLASS-136-89			US-PATENT-APPL-SN-6615
		US-PATENT-APPL-SN-867851			US-PATENT-CLASS-312-257			US-PATENT-CLASS-156-50
N72-22485* #	c 15	US-PATENT-CLASS-62-55.5	N72-23171* #	c 09	US-PATENT-3,620,846	N72-25120* #	c 05	US-PATENT-CLASS-156-510
		US-PATENT-3,625,018			NASA-CASE-NPO-11388			US-PATENT-3,674,036
		NASA-CASE-MSC-13512-1			US-PATENT-APPL-SN-119282			NASA-CASE-GSC-11211-1
		US-PATENT-APPL-SN-73932			US-PATENT-CLASS-310-2			US-PATENT-APPL-SN-139528
N72-22486* #	c 15	US-PATENT-CLASS-74-501R	N72-23172* #	c 09	US-PATENT-CLASS-321-2	N72-25121* #	c 05	US-PATENT-CLASS-235-92T
		US-PATENT-3,625,084			US-PATENT-CLASS-322-2			US-PATENT-CLASS-307-141.8
		NASA-CASE-KSC-10031			US-PATENT-3,648,152			US-PATENT-CLASS-320-48
		US-PATENT-APPL-SN-98773			NASA-CASE-LAR-10102-1			US-PATENT-CLASS-324-29.5
N72-22487* #	c 15	US-PATENT-CLASS-220-5R	N72-23173* #	c 09	US-PATENT-APPL-SN-13266	N72-25146* #	c 06	US-PATENT-3,663,938
		US-PATENT-CLASS-317-101DH			US-PATENT-CLASS-224-25A			NASA-CASE-NPO-11118
		US-PATENT-CLASS-317-117			US-PATENT-3,649,921			US-PATENT-APPL-SN-8650
		US-PATENT-CLASS-317-120			NASA-CASE-GSC-10221-1			US-PATENT-CLASS-214-90R
N72-22488* #	c 15	US-PATENT-3,639,809	N72-23457* #	c 14	US-PATENT-APPL-SN-779025	N72-25147* #	c 06	US-PATENT-3,666,120
		NASA-CASE-GSC-10303			US-PATENT-CLASS-307-252N			NASA-CASE-MSC-12397-1
		US-PATENT-APPL-SN-802813			US-PATENT-CLASS-307-252R			US-PATENT-APPL-SN-785613
		US-PATENT-CLASS-29-473.1			US-PATENT-CLASS-307-259			US-PATENT-CLASS-2-115
N72-22489* #	c 15	US-PATENT-3,619,896	N72-23497* #	c 15	US-PATENT-CLASS-307-305	N72-25150* #	c 06	US-PATENT-CLASS-2-2.1
		NASA-CASE-MSC-11849-1			US-PATENT-3,621,294			US-PATENT-3,660,851
		US-PATENT-APPL-SN-6617			NASA-CASE-LAR-10320-1			NASA-CASE-MSC-90153-2
		US-PATENT-CLASS-85-1			US-PATENT-APPL-SN-18427			US-PATENT-APPL-SN-844225
N72-22490* #	c 15	US-PATENT-3,623,394	N72-23809* #	c 28	US-PATENT-CLASS-324-20R	N72-25149* #	c 06	US-PATENT-CLASS-106-209
		NASA-CASE-GSC-10518-1			US-PATENT-3,649,907			US-PATENT-CLASS-128-2.1
		US-PATENT-APPL-SN-789045			NASA-CASE-ERC-10267			US-PATENT-CLASS-128-417
		US-PATENT-CLASS-417-152			US-PATENT-APPL-SN-41348			US-PATENT-CLASS-252-514
N72-22491* #	c 15	US-PATENT-CLASS-55-446	N72-23810* #	c 28	US-PATENT-CLASS-235-197	N72-25151* #	c 06	US-PATENT-CLASS-264-104
		US-PATENT-CLASS-55-464			US-PATENT-CLASS-307-229			US-PATENT-3,665,064
		US-PATENT-3,623,828			US-PATENT-CLASS-328-145			NASA-CASE-FRC-10029-2
		NASA-CASE-LEW-10856-1			US-PATENT-3,648,043			US-PATENT-APPL-SN-78704
N72-22492* #	c 15	US-PATENT-APPL-SN-3417	N72-24037* #	c 03	US-PATENT-CLASS-328-145	N72-25152* #	c 06	US-PATENT-CLASS-156-264
		US-PATENT-CLASS-308-195			US-PATENT-3,648,043			US-PATENT-CLASS-156-308
		US-PATENT-3,620,585			NASA-CASE-MFS-20710			US-PATENT-CLASS-29-25.14
		NASA-CASE-GSC-10913			US-PATENT-APPL-SN-114848			US-PATENT-CLASS-29-25.18
N72-22493* #	c 15	US-PATENT-CLASS-13-20	N72-24477* #	c 14	US-PATENT-CLASS-13-31	N72-25170* #	c 07	US-PATENT-CLASS-29-482
		US-PATENT-3,647,924			US-PATENT-3,647,924			US-PATENT-CLASS-29-630A
		NASA-CASE-MSC-12297			NASA-CASE-MSC-12297			US-PATENT-3,662,441
		US-PATENT-APPL-SN-792623			US-PATENT-CLASS-55-493			NASA-CASE-MSC-13609-1
N72-22494* #	c 15	US-PATENT-CLASS-55-498	N72-24773* #	c 14	US-PATENT-CLASS-55-502	N72-25170* #	c 07	US-PATENT-APPL-SN-94347
		US-PATENT-CLASS-55-521			US-PATENT-CLASS-55-502			US-PATENT-CLASS-128-2N
		US-PATENT-3,650,095			US-PATENT-CLASS-55-521			US-PATENT-3,662,744
		NASA-CASE-KSC-10242			US-PATENT-3,650,095			NASA-CASE-NPO-11322
N72-22495* #	c 15	US-PATENT-APPL-SN-73834	N72-25019* #	c 03	US-PATENT-CLASS-106-84	N72-25150* #	c 06	US-PATENT-APPL-SN-87550
		US-PATENT-CLASS-219-109			US-PATENT-3,620,784			US-PATENT-CLASS-250-43.5R
		US-PATENT-CLASS-219-234			NASA-CASE-HQN-10541-3			US-PATENT-CLASS-73-23.1
		US-PATENT-CLASS-219-85			US-PATENT-APPL-SN-822089			US-PATENT-3,666,942
N72-22500* #	c 16	US-PATENT-CLASS-324-65R	N72-25020* #	c 03	US-PATENT-3,621,193	N72-25151* #	c 06	NASA-CASE-ARC-10325
		US-PATENT-3,621,194			NASA-CASE-GSC-10361-1			US-PATENT-APPL-SN-63610
		NASA-CASE-MFS-20482			US-PATENT-APPL-SN-700040			US-PATENT-CLASS-260-2.5FP
		US-PATENT-APPL-SN-6610			US-PATENT-CLASS-106-84			US-PATENT-3,663,464
N72-22501* #	c 16	US-PATENT-CLASS-29-472.9	N72-25148* #	c 06	US-PATENT-CLASS-106-84	N72-25148* #	c 06	NASA-CASE-MFS-13994-2
		US-PATENT-CLASS-29-473.1			US-PATENT-3,620,784			US-PATENT-APPL-SN-870689
		US-PATENT-3,602,979			NASA-CASE-HQN-10541-3			US-PATENT-CLASS-260-348SC
		US-PATENT-CLASS-219-234			US-PATENT-APPL-SN-822089			US-PATENT-3,660,434
N72-22502* #	c 17	US-PATENT-CLASS-219-85	N72-25149* #	c 06	US-PATENT-CLASS-350-171	N72-25150* #	c 06	NASA-CASE-GSC-10565-1
		US-PATENT-CLASS-29-828			US-PATENT-3,606,522			US-PATENT-APPL-SN-822039
		US-PATENT-3,621,194			US-PATENT-3,606,522			US-PATENT-CLASS-195-103.5R
		NASA-CASE-XNP-09461			NASA-CASE-XNP-09461			US-PATENT-CLASS-195-28N
N72-22503* #	c 17	US-PATENT-CLASS-260-21.5	N72-25150* #	c 06	US-PATENT-APPL-SN-670829	N72-25151* #	c 06	US-PATENT-CLASS-260-211.5
		US-PATENT-3,623,861			US-PATENT-CLASS-239-418			US-PATENT-3,660,240
		NASA-CASE-LEW-10874-1			US-PATENT-CLASS-239-433			NASA-CASE-XLE-06774-2
		US-PATENT-APPL-SN-68024			US-PATENT-CLASS-239-543			US-PATENT-APPL-SN-5114
N72-22504* #	c 17	US-PATENT-CLASS-106-84	N72-25151* #	c 06	US-PATENT-3,650,474	N72-25152* #	c 06	US-PATENT-CLASS-117-132
		US-PATENT-3,620,791			NASA-CASE-NPO-11458			US-PATENT-CLASS-117-161
		NASA-CASE-NPO-11091			US-PATENT-APPL-SN-36926			US-PATENT-CLASS-260-2.5
		US-PATENT-CLASS-260-2.1E			US-PATENT-CLASS-60-266			US-PATENT-CLASS-260-92.1
N72-22505* #	c 18	US-PATENT-3,629,161	N72-25151* #	c 06	US-PATENT-CLASS-60-271	N72-25152* #	c 06	US-PATENT-3,666,741
		NASA-CASE-ARC-10179-1			US-PATENT-3,648,461			NASA-CASE-MFS-20979
		US-PATENT-APPL-SN-835058			NASA-CASE-GSC-11514-1			US-PATENT-APPL-SN-100774
		US-PATENT-CLASS-244-114			US-PATENT-APPL-SN-820453			US-PATENT-CLASS-260-18S
N72-22506* #	c 18	US-PATENT-CLASS-340-26	N72-25170* #	c 07	US-PATENT-CLASS-117-201	N72-25170* #	c 07	US-PATENT-CLASS-260-448.2D
		US-PATENT-3,624,598			US-PATENT-CLASS-136-89			US-PATENT-CLASS-260-46.5E
		NASA-CASE-XER-07896-2			US-PATENT-3,653,979			US-PATENT-CLASS-260-46.5G
		US-PATENT-APPL-SN-36819			NASA-CASE-ARC-10138-1			US-PATENT-CLASS-260-46.5P
N72-22507* #	c 23	US-PATENT-CLASS-350-310	N72-24477* #	c 14	US-PATENT-APPL-SN-774733	N72-25152* #	c 06	US-PATENT-3,666,718
		US-PATENT-3,620,606			US-PATENT-CLASS-250-83.3H			NASA-CASE-NPO-10863-2
		NASA-CASE-ARC-10106-1			US-PATENT-CLASS-317-247			US-PATENT-APPL-SN-145026
		US-PATENT-APPL-SN-812998			US-PATENT-CLASS-324-61R			US-PATENT-CLASS-260-92.1
N72-22508* #	c 28	US-PATENT-CLASS-244-3.22	N72-25152* #	c 06	US-PATENT-CLASS-73-355R	N72-25170* #	c 07	US-PATENT-3,663,521
		US-PATENT-3,612,442			US-PATENT-3,657,644			NASA-CASE-LAR-10513-1
		NASA-CASE-LEW-10770-1			NASA-CASE-NPO-11036			US-PATENT-APPL-SN-64723
		US-PATENT-APPL-SN-880246			US-PATENT-APPL-SN-41346			US-PATENT-CLASS-333-7

		US-PATENT-CLASS-333-81R			US-PATENT-CLASS-321-18			US-PATENT-CLASS-73-421.5R
		US-PATENT-CLASS-333-88P			US-PATENT-CLASS-321-2			US-PATENT-CLASS-73-422GC
		US-PATENT-CLASS-333-88R			US-PATENT-3,659,184			US-PATENT-CLASS-73-422TC
		US-PATENT-CLASS-333-88S			NASA-CASE-ERC-10268			US-PATENT-3,682,804
		US-PATENT-3,648,835			US-PATENT-APPL-SN-39342			NASA-CASE-ERC-10174
N72-25171* #	c 07	NASA-CASE-MFS-21042	N72-25252* #	c 09	US-PATENT-CLASS-321-11	N72-25409* #	c 14	US-PATENT-APPL-SN-39344
		US-PATENT-APPL-SN-88417			US-PATENT-CLASS-321-18			US-PATENT-CLASS-250-209
		US-PATENT-CLASS-102-34.4			US-PATENT-CLASS-321-19			US-PATENT-CLASS-250-226
		US-PATENT-CLASS-325-114			US-PATENT-CLASS-321-2			US-PATENT-CLASS-250-83.3UV
		US-PATENT-CLASS-325-4			US-PATENT-CLASS-321-45ER			US-PATENT-CLASS-350-203
		US-PATENT-CLASS-343-6.5R			US-PATENT-CLASS-321-45R			US-PATENT-3,657,549
		US-PATENT-3,667,044			US-PATENT-3,683,940	N72-25410* #	c 14	NASA-CASE-ERC-10282
N72-25172* #	c 07	NASA-CASE-NPO-11358	N72-25253* #	c 09	NASA-CASE-GSC-11126-1			US-PATENT-APPL-SN-45519
		US-PATENT-APPL-SN-116786			US-PATENT-APPL-SN-88640			US-PATENT-CLASS-350-160R
		US-PATENT-CLASS-179-158V			US-PATENT-CLASS-321-2			US-PATENT-CLASS-73-515
		US-PATENT-CLASS-340-172.5			US-PATENT-CLASS-321-47			US-PATENT-CLASS-73-521
		US-PATENT-3,665,417			US-PATENT-CLASS-331-113A			US-PATENT-3,657,928
N72-25173* #	c 07	NASA-CASE-ERC-10324	N72-25254* #	c 09	US-PATENT-3,683,941	N72-25411* #	c 14	NASA-CASE-MS-15626-1
		US-PATENT-APPL-SN-54270			NASA-CASE-NPO-10780			US-PATENT-APPL-SN-94374
		US-PATENT-CLASS-178-69.5			US-PATENT-APPL-SN-129071			US-PATENT-CLASS-116-114AH
		US-PATENT-CLASS-325-141			US-PATENT-CLASS-321-2			US-PATENT-CLASS-73-12
		US-PATENT-CLASS-325-302			US-PATENT-CLASS-321-45R			US-PATENT-CLASS-73-482
		US-PATENT-CLASS-325-325			US-PATENT-CLASS-331-113A			US-PATENT-3,656,562
		US-PATENT-CLASS-325-38			US-PATENT-3,683,944	N72-25412* #	c 14	NASA-CASE-MFS-15063
		US-PATENT-CLASS-325-61	N72-25255* #	c 09	NASA-CASE-LAR-10620-1			US-PATENT-APPL-SN-51477
		US-PATENT-CLASS-325-65			US-PATENT-APPL-SN-125979			US-PATENT-CLASS-178-DIG.8
		US-PATENT-CLASS-325-68			US-PATENT-CLASS-310-10			US-PATENT-CLASS-178-6.8
		US-PATENT-CLASS-325-84			US-PATENT-CLASS-310-15			US-PATENT-CLASS-340-227R
		US-PATENT-CLASS-340-167			US-PATENT-3,683,843			US-PATENT-3,659,043
		US-PATENT-3,665,313	N72-25256* #	c 09	NASA-CASE-XLA-02609	N72-25413* #	c 14	NASA-CASE-GSC-10879-1
N72-25174* #	c 07	NASA-CASE-NPO-11264			US-PATENT-APPL-SN-41347			US-PATENT-APPL-SN-889420
		US-PATENT-APPL-SN-36531			US-PATENT-CLASS-333-79			US-PATENT-CLASS-195-127
		US-PATENT-CLASS-343-762			US-PATENT-CLASS-339-143R			US-PATENT-3,666,631
		US-PATENT-CLASS-343-777			US-PATENT-CLASS-339-147R	N72-25414* #	c 14	NASA-CASE-NPO-11311
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N72-29464* #	c 14	NASA-CASE-ARC-10017-1			US-PATENT-3,692,533	N73-12444* #	c 14	NASA-CASE-GSC-10903-1
		US-PATENT-APPL-SN-55536			NASA-CASE-MSC-12259-2			US-PATENT-APPL-SN-114846
		US-PATENT-CLASS-250-41.9D	N72-33146* #	c 07	US-PATENT-APPL-SN-61895			US-PATENT-CLASS-250-41.9G
		US-PATENT-CLASS-250-71.5R			US-PATENT-APPL-SN-853763			US-PATENT-CLASS-250-41.9S
		US-PATENT-CLASS-313-356			US-PATENT-CLASS-325-373			US-PATENT-CLASS-73-421.5
		US-PATENT-3,676,674			US-PATENT-3,694,753			US-PATENT-3,700,893
N72-29488* #	c 15	NASA-CASE-XLE-10326-2	N72-33172* #	c 08	NASA-CASE-NPO-11630	N73-12445* #	c 14	NASA-CASE-LAR-10728-1
		US-PATENT-APPL-SN-54540			US-PATENT-APPL-SN-143078			US-PATENT-APPL-SN-112998
		US-PATENT-APPL-SN-723465			US-PATENT-CLASS-179-15.55R			US-PATENT-CLASS-250-83.3H
		US-PATENT-CLASS-277-25			US-PATENT-3,694,581			US-PATENT-CLASS-250-83.3R
		US-PATENT-CLASS-277-27	N72-33204* #	c 09	NASA-CASE-NPO-11129			US-PATENT-CLASS-250-83R
		US-PATENT-CLASS-277-74			US-PATENT-APPL-SN-883523			US-PATENT-3,700,897
		US-PATENT-3,675,835			US-PATENT-CLASS-307-262	N73-12446* #	c 14	NASA-CASE-NPO-11239
N72-31140* #	c 06	NASA-CASE-MSC-13335-1			US-PATENT-CLASS-307-295			US-PATENT-APPL-SN-89211
		US-PATENT-APPL-SN-55806			US-PATENT-CLASS-328-155			US-PATENT-CLASS-356-106
		US-PATENT-CLASS-55-16			US-PATENT-CLASS-328-24			US-PATENT-CLASS-356-114
		US-PATENT-CLASS-55-55			US-PATENT-3,621,406			US-PATENT-3,700,334
		US-PATENT-3,678,654	N72-33205* #	c 09	NASA-CASE-GSC-10835-1	N73-12447* #	c 14	NASA-CASE-NPO-11493-1
N72-31141* #	c 06	NASA-CASE-ARC-10308-1			US-PATENT-APPL-SN-116778			US-PATENT-APPL-SN-151413
		US-PATENT-APPL-SN-134568			US-PATENT-CLASS-317-101A			US-PATENT-CLASS-136-224
		US-PATENT-CLASS-250-43.5R			US-PATENT-CLASS-317-235			US-PATENT-3,700,503
		US-PATENT-CLASS-356-51			US-PATENT-CLASS-317-235A	N73-12486* #	c 15	NASA-CASE-KSC-10615
		US-PATENT-3,678,899			US-PATENT-CLASS-317-235AJ			US-PATENT-APPL-SN-103078
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		US-PATENT-CLASS-235-150.1			US-PATENT-APPL-SN-107379			US-PATENT-CLASS-62-45
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		US-PATENT-3,681,581			US-PATENT-3,693,105			US-PATENT-CLASS-204-192
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		US-PATENT-CLASS-29-182.2				US-PATENT-APPL-SN-428993					US-PATENT-3,899,745
		US-PATENT-CLASS-29-182.5				US-PATENT-CLASS-250-343			N75-30430* #	c 33	NASA-CASE-NPO-13504-1
		US-PATENT-CLASS-29-420.5				US-PATENT-CLASS-250-345					US-PATENT-APPL-SN-483852
		US-PATENT-CLASS-65-3				US-PATENT-CLASS-250-432					US-PATENT-CLASS-33-96
		US-PATENT-CLASS-75-DIG.1				US-PATENT-3,891,848					US-PATENT-CLASS-333-21R
		US-PATENT-CLASS-75-200				NASA-CASE-NPO-13386-1					US-PATENT-CLASS-333-83BT
		US-PATENT-CLASS-75-208R				US-PATENT-APPL-SN-475336					US-PATENT-CLASS-333-98R
		US-PATENT-CLASS-75-212				US-PATENT-CLASS-214-1B					US-PATENT-3,902,143
		US-PATENT-CLASS-75-214				US-PATENT-CLASS-214-1CM			N75-30431* #	c 33	NASA-CASE-KSC-10782-1
		US-PATENT-CLASS-75-222				US-PATENT-CLASS-318-640					US-PATENT-APPL-SN-400467
		US-PATENT-3,887,365				US-PATENT-3,888,362					US-PATENT-CLASS-178-DIG.1
N75-26372* #	c 37	NASA-CASE-MFS-21931-1				NASA-CASE-MSC-13601-2					US-PATENT-CLASS-178-6.8
		US-PATENT-APPL-SN-464721				US-PATENT-APPL-SN-395495					US-PATENT-3,900,705
		US-PATENT-CLASS-250-359				US-PATENT-CLASS-351-38			N75-30502* #	c 35	NASA-CASE-ARC-10802-1
		US-PATENT-CLASS-250-460				US-PATENT-3,891,311					US-PATENT-APPL-SN-484208
		US-PATENT-CLASS-250-492				NASA-CASE-ARC-10753-1					US-PATENT-CLASS-205-343
		US-PATENT-3,889,122				US-PATENT-APPL-SN-427395					US-PATENT-CLASS-250-351
N75-26789* #	c 70	NASA-CASE-MFS-22758-1				US-PATENT-CLASS-128-2.05Z					US-PATENT-CLASS-250-373
		US-PATENT-APPL-SN-581514				US-PATENT-CLASS-128-2V					US-PATENT-CLASS-358-51
N75-27040* #	c 18	NASA-CASE-XHQ-02146				US-PATENT-CLASS-128-24A					US-PATENT-3,899,252
		US-PATENT-APPL-SN-290043				US-PATENT-CLASS-74-471XY			N75-30503* #	c 35	NASA-CASE-LEW-12078-1
		US-PATENT-CLASS-52-71				US-PATENT-3,893,449					US-PATENT-APPL-SN-447124
		US-PATENT-3,208,897				NASA-CASE-NPO-13313-1					US-PATENT-CLASS-73-194M
N75-27041* #	c 18	NASA-CASE-MSC-14245-1				US-PATENT-APPL-SN-449153					US-PATENT-CLASS-73-195
		US-PATENT-APPL-SN-389916				US-PATENT-CLASS-128-145.8					US-PATENT-3,898,882
		US-PATENT-CLASS-214-1CM				US-PATENT-CLASS-55-DIG.35			N75-30504* #	c 35	NASA-CASE-MSC-12531-1
		US-PATENT-3,893,573				US-PATENT-3,893,458					US-PATENT-APPL-SN-354612
N75-27125* #	c 26	NASA-CASE-XMF-05868				NASA-CASE-MFS-21077-1					US-PATENT-CLASS-307-204
		US-PATENT-APPL-SN-612509				US-PATENT-APPL-SN-127481					US-PATENT-CLASS-307-211
		US-PATENT-CLASS-260-29.6				US-PATENT-CLASS-228-190					US-PATENT-CLASS-307-219
		US-PATENT-3,475,442				US-PATENT-CLASS-228-193					US-PATENT-CLASS-328-61
N75-27126* #	c 26	NASA-CASE-XMF-06053				US-PATENT-CLASS-229-419					US-PATENT-CLASS-328-62
		US-PATENT-APPL-SN-542192				US-PATENT-3,894,677					US-PATENT-3,900,741
		US-PATENT-CLASS-75-173				NASA-CASE-HQN-10462			N75-30524* #	c 36	NASA-CASE-NPO-13308-1
		US-PATENT-3,411,900				US-PATENT-APPL-SN-773530					US-PATENT-APPL-SN-455165
N75-27127* #	c 26	NASA-CASE-XNP-03878				US-PATENT-CLASS-118-43					US-PATENT-CLASS-310-4
		US-PATENT-APPL-SN-488745				US-PATENT-3,603,285					US-PATENT-CLASS-331-DIG.1
		US-PATENT-CLASS-75-173				NASA-CASE-XNP-01311					US-PATENT-3,899,696
		US-PATENT-3,373,016				US-PATENT-APPL-SN-430496			N75-30562* #	c 37	NASA-CASE-LEW-11076-3
N75-27160* #	c 27	NASA-CASE-MFS-22324-1				US-PATENT-CLASS-148-127					US-PATENT-APPL-SN-405346
		US-PATENT-APPL-SN-350250				US-PATENT-3,390,023					US-PATENT-CLASS-308-121
		US-PATENT-CLASS-106-48				NASA-CASE-LAR-11397-1					US-PATENT-CLASS-308-73
		US-PATENT-CLASS-106-54				US-PATENT-APPL-SN-532784					US-PATENT-3,899,224
		US-PATENT-CLASS-117-129				NASA-CASE-ARC-10266-1					
N75-27249* #	c 33										
N75-27250* #	c 33										
N75-27251* #	c 33										
N75-27252* #	c 33										
N75-26244* #	c 33										
N75-26245* #	c 33										
N75-26246* #	c 33										
N75-26282* #	c 34										
N75-26334* #	c 35										
N75-26371* #	c 37										
N75-26372* #	c 37										
N75-26789* #	c 70										
N75-27040* #	c 18										
N75-27041* #	c 18										
N75-27125* #	c 26										
N75-27126* #	c 26										
N75-27127* #	c 26										
N75-27160* #	c 27										
N75-27249* #	c 33										
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N75-26334* #	c 35										
N75-26371* #	c 37										
N75-26372* #	c 37										
N75-26789* #	c 70										
N75-27040* #	c 18										
N75-27041* #	c 18										
N75-27125* #	c 26										
N75-27126* #	c 26										

N75-30876* #	c 73	NASA-CASE-LEW-11227-1 US-PATENT-APPL-SN-146939 US-PATENT-CLASS-244-15S US-PATENT-CLASS-250-493 US-PATENT-CLASS-250-496 US-PATENT-3,899,680
N75-31329* #	c 33	NASA-CASE-NPO-13423-1 US-PATENT-APPL-SN-470429 US-PATENT-CLASS-126-2S US-PATENT-CLASS-338-2 US-PATENT-CLASS-73-88.5 US-PATENT-3,905,356
N75-31330* #	c 33	NASA-CASE-NPO-13426-1 US-PATENT-APPL-SN-45053 US-PATENT-CLASS-307-225R US-PATENT-CLASS-328-41 US-PATENT-3,906,374
N75-31331* #	c 33	NASA-CASE-NPO-11156-2 US-PATENT-APPL-SN-174684 US-PATENT-CLASS-307-238 US-PATENT-CLASS-340-173CA US-PATENT-CLASS-357-24 US-PATENT-CLASS-357-7 US-PATENT-3,906,296
N75-31332* #	c 33	NASA-CASE-NPO-13348-1 US-PATENT-APPL-SN-452770 US-PATENT-CLASS-250-238 US-PATENT-CLASS-250-370 US-PATENT-CLASS-357-5 US-PATENT-3,906,231
N75-31426* #	c 36	NASA-CASE-ARC-10370-1 US-PATENT-APPL-SN-137391 US-PATENT-CLASS-331-84.5G US-PATENT-CLASS-331-84.5P US-PATENT-3,906,397
N75-31427* #	c 36	NASA-CASE-NPO-13175-1 US-PATENT-APPL-SN-374423 US-PATENT-CLASS-331-84.5C US-PATENT-CLASS-350-181 US-PATENT-CLASS-350-96WG US-PATENT-3,906,393
N75-31446* #	c 37	NASA-CASE-LEW-11925-1 US-PATENT-APPL-SN-450505 US-PATENT-CLASS-308-191 US-PATENT-CLASS-308-195 US-PATENT-CLASS-308-201 US-PATENT-3,905,660
N75-32441* #	c 36	NASA-CASE-NPO-13449-1 US-PATENT-APPL-SN-420813 US-PATENT-CLASS-310-11 US-PATENT-CLASS-330-4.3 US-PATENT-CLASS-331-84.5PE US-PATENT-CLASS-331-84.5G US-PATENT-3,906,398
N75-32465* #	c 37	NASA-CASE-ARC-10907-1 US-PATENT-APPL-SN-619886 US-PATENT-CLASS-331-84.5G US-PATENT-CLASS-331-84.5G US-PATENT-3,906,398
N75-32581* #	c 44	NASA-CASE-MFS-21628-1 US-PATENT-APPL-SN-421702 US-PATENT-CLASS-126-271 US-PATENT-CLASS-165-105 US-PATENT-CLASS-244-173 US-PATENT-CLASS-60-641 US-PATENT-CLASS-60-659 US-PATENT-3,903,699
N75-33181* #	c 24	NASA-CASE-LEW-11484-1 US-PATENT-APPL-SN-356554 US-PATENT-CLASS-117-105.2 US-PATENT-CLASS-117-38 US-PATENT-CLASS-117-48FS US-PATENT-CLASS-117-8.5 US-PATENT-CLASS-29-DIG.24 US-PATENT-CLASS-29-DIG.39 US-PATENT-CLASS-29-527.2 US-PATENT-CLASS-72-48 US-PATENT-3,906,789
N75-33342* #	c 34	NASA-CASE-MSC-14273-1 US-PATENT-APPL-SN-385522 US-PATENT-CLASS-210-234 US-PATENT-CLASS-210-259 US-PATENT-CLASS-210-304 US-PATENT-CLASS-210-333 US-PATENT-CLASS-210-340 US-PATENT-CLASS-210-411 US-PATENT-CLASS-210-425 US-PATENT-CLASS-210-512 US-PATENT-CLASS-210-82 US-PATENT-3,907,686
N75-33367* #	c 35	NASA-CASE-LAR-10629-1 US-PATENT-APPL-SN-402887 US-PATENT-CLASS-116-114AH US-PATENT-CLASS-73-12 US-PATENT-CLASS-73-170R US-PATENT-CLASS-73-432PS US-PATENT-3,896,758
N75-33368* #	c 35	NASA-CASE-LAR-11326-1 US-PATENT-APPL-SN-491416
N75-33389* #	c 35	NASA-CASE-LAR-11263-1 US-PATENT-APPL-SN-472775 US-PATENT-CLASS-73-141A US-PATENT-3,906,788
N75-33395* #	c 37	NASA-CASE-MFS-22283-1 US-PATENT-APPL-SN-387095 US-PATENT-CLASS-279-1B US-PATENT-CLASS-279-107 US-PATENT-CLASS-279-69 US-PATENT-CLASS-29-26A US-PATENT-CLASS-294-116 US-PATENT-CLASS-294-68.33 US-PATENT-3,907,312
N75-33840* #	c 52	NASA-CASE-LEW-12051-1 US-PATENT-APPL-SN-397478 US-PATENT-CLASS-128-230 US-PATENT-CLASS-128-305 US-PATENT-3,906,954
N76-14156* #	c 15	NASA-CASE-LAR-11051-1 US-PATENT-APPL-SN-384773 US-PATENT-CLASS-244-165 US-PATENT-CLASS-244-3.21 US-PATENT-CLASS-74-5.7 US-PATENT-3,915,416
N76-14186* #	c 18	NASA-CASE-MSC-12558-1 US-PATENT-APPL-SN-370582 US-PATENT-CLASS-178-DIG.20 US-PATENT-CLASS-244-161 US-PATENT-CLASS-33-286 US-PATENT-CLASS-35-12 US-PATENT-CLASS-356-153 US-PATENT-3,910,533
N76-14190* #	c 20	NASA-CASE-LEW-11593-1 US-PATENT-APPL-SN-363891 US-PATENT-CLASS-60-39.23 US-PATENT-CLASS-60-39.29 US-PATENT-CLASS-60-39.74R US-PATENT-3,910,035
N76-14191* #	c 20	NASA-CASE-LEW-11118-2 US-PATENT-APPL-SN-436316 US-PATENT-CLASS-239-127.3 US-PATENT-CLASS-60-265 US-PATENT-CLASS-60-267 US-PATENT-3,910,039
N76-14203* #	c 24	NASA-CASE-NPO-12122-1 US-PATENT-APPL-SN-401821 US-PATENT-CLASS-149-36 US-PATENT-CLASS-423-407 US-PATENT-3,919,014
N76-14204* #	c 24	NASA-CASE-MSC-12568-1 US-PATENT-APPL-SN-325784 US-PATENT-CLASS-136-146 US-PATENT-CLASS-136-148 US-PATENT-CLASS-162-102 US-PATENT-CLASS-162-153 US-PATENT-CLASS-162-222 US-PATENT-CLASS-162-228 US-PATENT-3,910,814
N76-14284* #	c 27	NASA-CASE-MSC-14182-1 US-PATENT-APPL-SN-419748 US-PATENT-CLASS-403-179 US-PATENT-CLASS-403-28 US-PATENT-CLASS-428-108 US-PATENT-CLASS-428-212 US-PATENT-CLASS-428-214 US-PATENT-CLASS-428-416 US-PATENT-CLASS-428-447 US-PATENT-CLASS-428-77 US-PATENT-3,920,339
N76-14284* #	c 31	NASA-CASE-NPO-13435-1 US-PATENT-APPL-SN-478803 US-PATENT-CLASS-62-129 US-PATENT-CLASS-62-49 US-PATENT-CLASS-73-295 US-PATENT-3,914,950
N76-14321* #	c 32	NASA-CASE-LAR-11021-1 US-PATENT-APPL-SN-453115 US-PATENT-CLASS-325-304 US-PATENT-CLASS-325-306 US-PATENT-CLASS-325-372 US-PATENT-CLASS-326-145 US-PATENT-CLASS-343-176 US-PATENT-3,916,316
N76-14371* #	c 33	NASA-CASE-KSC-10934-1 US-PATENT-APPL-SN-538535 US-PATENT-CLASS-178-69.5R US-PATENT-CLASS-178-68 US-PATENT-CLASS-328-190 US-PATENT-CLASS-328-63 US-PATENT-3,916,084
N76-14372* #	c 33	NASA-CASE-LAR-10970-1 US-PATENT-APPL-SN-527780 US-PATENT-CLASS-343-770 US-PATENT-CLASS-343-797
N76-14373* #	c 33	NASA-CASE-NPO-13451-1 US-PATENT-APPL-SN-501012 US-PATENT-CLASS-235-92SH US-PATENT-CLASS-307-221R US-PATENT-CLASS-328-37 US-PATENT-3,911,330
N76-14429* #	c 35	NASA-CASE-LAR-11552-1 US-PATENT-APPL-SN-518685 US-PATENT-CLASS-73-182 US-PATENT-CLASS-73-212 US-PATENT-3,914,997
N76-14430* #	c 35	NASA-CASE-NPO-13170-1 US-PATENT-APPL-SN-382281 US-PATENT-CLASS-338-6 US-PATENT-CLASS-73-88.5R US-PATENT-3,914,991
N76-14431* #	c 35	NASA-CASE-LEW-11915-1 US-PATENT-APPL-SN-474744 US-PATENT-CLASS-137-15.2 US-PATENT-CLASS-235-151.34 US-PATENT-CLASS-60-39.29 US-PATENT-3,911,260
N76-14447* #	c 36	NASA-CASE-ARC-10642-1 US-PATENT-APPL-SN-446562 US-PATENT-CLASS-356-106R US-PATENT-CLASS-356-28 US-PATENT-3,915,572
N76-14460* #	c 37	NASA-CASE-MFS-19194-1 US-PATENT-APPL-SN-483850 US-PATENT-CLASS-285-226 US-PATENT-CLASS-285-265 US-PATENT-3,915,482
N76-14461* #	c 37	NASA-CASE-LEW-11694-2 US-PATENT-APPL-SN-352381 US-PATENT-APPL-SN-482903 US-PATENT-CLASS-29-421 US-PATENT-CLASS-72-383 US-PATENT-CLASS-72-54 US-PATENT-CLASS-72-63 US-PATENT-3,914,988
N76-14463* #	c 37	NASA-CASE-MFS-22323-1 US-PATENT-APPL-SN-474745 US-PATENT-CLASS-137-515.3 US-PATENT-CLASS-137-550 US-PATENT-CLASS-210-429 US-PATENT-CLASS-251-148.6 US-PATENT-3,910,307
N76-14595* #	c 44	NASA-CASE-MFS-22562-1 US-PATENT-APPL-SN-458484 US-PATENT-CLASS-126-270 US-PATENT-CLASS-136-206 US-PATENT-CLASS-204-32R US-PATENT-CLASS-204-33 US-PATENT-CLASS-204-38A US-PATENT-CLASS-204-40 US-PATENT-CLASS-204-42 US-PATENT-CLASS-204-49 US-PATENT-CLASS-29-194 US-PATENT-CLASS-29-195 US-PATENT-CLASS-29-197 US-PATENT-3,920,413
N76-14600* #	c 44	NASA-CASE-LEW-11065-2 US-PATENT-APPL-SN-154930 US-PATENT-APPL-SN-371322 US-PATENT-CLASS-136-69 US-PATENT-CLASS-29-572 US-PATENT-3,912,540
N76-14601* #	c 44	NASA-CASE-MFS-22749-1 US-PATENT-APPL-SN-483857 US-PATENT-CLASS-136-114 US-PATENT-CLASS-136-162 US-PATENT-CLASS-136-182 US-PATENT-CLASS-136-80 US-PATENT-3,912,541
N76-14602* #	c 44	NASA-CASE-NPO-13497-1 US-PATENT-APPL-SN-526448 US-PATENT-CLASS-126-271 US-PATENT-CLASS-237-1A US-PATENT-CLASS-350-211 US-PATENT-3,915,148
N76-14757* #	c 52	NASA-CASE-MSC-14180-1 US-PATENT-APPL-SN-354406 US-PATENT-CLASS-128-2.06R US-PATENT-CLASS-128-2.1A US-PATENT-CLASS-128-2H US-PATENT-3,910,257
N76-14804* #	c 54	NASA-CASE-MSC-14840-1 US-PATENT-APPL-SN-526449 US-PATENT-CLASS-128-2F US-PATENT-CLASS-73-421R US-PATENT-3,915,012
N76-14818* #	c 60	NASA-CASE-NPO-13422-1 US-PATENT-APPL-SN-521601 US-PATENT-CLASS-340-147C

		US-PATENT-CLASS-340-147R US-PATENT-3,916,380				US-PATENT-APPL-SN-445178 US-PATENT-CLASS-308-122 US-PATENT-CLASS-308-160 US-PATENT-CLASS-308-72 US-PATENT-CLASS-308-73 US-PATENT-CLASS-308-9 US-PATENT-3,926,482					US-PATENT-CLASS-136-202 US-PATENT-CLASS-136-210 US-PATENT-CLASS-165-105 US-PATENT-CLASS-310-4 US-PATENT-3,931,532	
N76-14931* #	c 75	NASA-CASE-MFS-22287-1 US-PATENT-APPL-SN-438147 US-PATENT-CLASS-315-111.6 US-PATENT-CLASS-73-12 US-PATENT-CLASS-89-8 US-PATENT-3,916,781		N76-15860* #	c 72	NASA-CASE-LEW-11868-1 US-PATENT-APPL-SN-500980 US-PATENT-CLASS-250-499 US-PATENT-CLASS-250-500 US-PATENT-3,924,137		N76-17185* #	c 18	NASA-CASE-MSC-12561-1 US-PATENT-APPL-SN-448323 US-PATENT-CLASS-244-162 US-PATENT-CLASS-244-172 US-PATENT-3,929,306		
N76-15189* #	c 12	NASA-CASE-MSC-12611-1 US-PATENT-APPL-SN-446560 US-PATENT-CLASS-350-288 US-PATENT-CLASS-350-293 US-PATENT-CLASS-427-162 US-PATENT-CLASS-427-250 US-PATENT-3,927,227		N76-16014* #	c 02	NASA-CASE-LAR-11575-1 US-PATENT-APPL-SN-527727 US-PATENT-CLASS-244-139 US-PATENT-3,930,828		N76-17317* #	c 34	NASA-CASE-LAR-10799-2 US-PATENT-APPL-SN-301419 US-PATENT-APPL-SN-419319 US-PATENT-CLASS-165-105 US-PATENT-CLASS-165-106 US-PATENT-CLASS-237-60 US-PATENT-CLASS-244-117A US-PATENT-CLASS-244-135R US-PATENT-CLASS-417-209 US-PATENT-3,929,305		
N76-15268* #	c 23	NASA-CASE-MFS-22355-1 US-PATENT-APPL-SN-487852 US-PATENT-CLASS-260-32.6N US-PATENT-CLASS-260-32.8N US-PATENT-CLASS-260-346.3 US-PATENT-CLASS-260-47CP US-PATENT-CLASS-260-571 US-PATENT-CLASS-260-78TF US-PATENT-3,925,312		N76-16228* #	c 27	NASA-CASE-NPO-12061-1 US-PATENT-APPL-SN-45549 US-PATENT-CLASS-260-879 US-PATENT-CLASS-260-900 US-PATENT-CLASS-260-92.1 US-PATENT-3,931,132		N76-17656* #	c 45	NASA-CASE-LAR-11675-1 US-PATENT-APPL-SN-557448 US-PATENT-CLASS-178-DIG.1 US-PATENT-CLASS-178-DIG.8 US-PATENT-CLASS-178-6.8 US-PATENT-CLASS-250-373 US-PATENT-CLASS-340-237S US-PATENT-CLASS-356-207 US-PATENT-3,931,462		
N76-15310* #	c 27	NASA-CASE-ARC-10714-1 US-PATENT-APPL-SN-398885 US-PATENT-CLASS-260-2.5AK US-PATENT-CLASS-427-196 US-PATENT-CLASS-427-426 US-PATENT-CLASS-428-303 US-PATENT-3,916,060		N76-16229* #	c 27	NASA-CASE-LEW-11179-1 US-PATENT-APPL-SN-357312 US-PATENT-CLASS-29-185A US-PATENT-CLASS-427-203 US-PATENT-CLASS-427-204 US-PATENT-CLASS-427-205 US-PATENT-CLASS-427-270 US-PATENT-CLASS-427-275 US-PATENT-CLASS-427-287 US-PATENT-CLASS-428-450 US-PATENT-CLASS-428-457 US-PATENT-CLASS-428-469 US-PATENT-CLASS-428-539 US-PATENT-3,931,447		N76-17851* #	c 75	NASA-CASE-MFS-22145-2 US-PATENT-APPL-SN-367606 US-PATENT-APPL-SN-500982 US-PATENT-CLASS-124-1 US-PATENT-CLASS-124-11R US-PATENT-CLASS-89-8 US-PATENT-3,928,119		
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US-PATENT-CLASS-137-110  
US-PATENT-3,957,044

N76-25049\* # c 76 ..... NASA-CASE-LEW-12094-1  
US-PATENT-APPL-SN-508784  
US-PATENT-CLASS-148-175  
US-PATENT-CLASS-156-610  
US-PATENT-CLASS-156-612  
US-PATENT-CLASS-156-613  
US-PATENT-CLASS-252-62.3  
US-PATENT-CLASS-423-345  
US-PATENT-CLASS-423-346  
US-PATENT-3,956,032

N76-26175\* # c 04 ..... NASA-CASE-MFS-23551-1  
US-PATENT-APPL-SN-114772  
US-PATENT-CLASS-244-79  
US-PATENT-CLASS-74-5.34  
US-PATENT-3,739,646

N76-27232\* # c 07 ..... NASA-CASE-LAR-11476-1  
US-PATENT-APPL-SN-592159  
US-PATENT-CLASS-73-557  
US-PATENT-3,964,319

N76-27383\* # c 25 ..... NASA-CASE-LEW-11390-2  
US-PATENT-APPL-SN-247344  
US-PATENT-APPL-SN-340883  
US-PATENT-CLASS-176-11  
US-PATENT-CLASS-176-16  
US-PATENT-CLASS-423-249  
US-PATENT-3,966,547

N76-27472\* # c 33 ..... NASA-CASE-GSC-11924-1  
US-PATENT-APPL-SN-582318  
US-PATENT-CLASS-343-755  
US-PATENT-CLASS-343-779  
US-PATENT-CLASS-343-854  
US-PATENT-3,965,475

N76-27473\* # c 33 ..... NASA-CASE-HON-10876-1  
US-PATENT-APPL-SN-556336  
US-PATENT-CLASS-250-338  
US-PATENT-CLASS-250-372  
US-PATENT-3,965,354

N76-27515\* # c 34 ..... NASA-CASE-NPO-13391-1  
US-PATENT-APPL-SN-448587  
US-PATENT-CLASS-165-105  
US-PATENT-CLASS-28-182  
US-PATENT-CLASS-28-193  
US-PATENT-CLASS-55-523  
US-PATENT-CLASS-55-526  
US-PATENT-CLASS-75-225  
US-PATENT-3,964,902

N76-27517\* # c 34 ..... NASA-CASE-ARC-10755-2  
US-PATENT-APPL-SN-424013  
US-PATENT-APPL-SN-545284  
US-PATENT-CLASS-73-147  
US-PATENT-CLASS-73-189  
US-PATENT-CLASS-73-184R  
US-PATENT-3,964,306

N76-27567\* # c 37 ..... NASA-CASE-LAR-11709-1  
US-PATENT-APPL-SN-548468  
US-PATENT-CLASS-339-17M  
US-PATENT-CLASS-339-18C  
US-PATENT-3,964,813

N76-27568\* # c 37 ..... NASA-CASE-LAR-11726-1  
US-PATENT-APPL-SN-538047  
US-PATENT-CLASS-219-118  
US-PATENT-CLASS-219-92  
US-PATENT-3,987,091

N76-27664\* # c 44 ..... NASA-CASE-MFS-23059-1  
US-PATENT-APPL-SN-537024  
US-PATENT-CLASS-136-86A  
US-PATENT-3,964,928

N76-28563\* # c 38 ..... NASA-CASE-NPO-12142-1  
US-PATENT-APPL-SN-637249  
US-PATENT-CLASS-73-88.5  
US-PATENT-3,545,262

N76-28635\* # c 44 ..... NASA-CASE-GSC-12022-1  
NASA-CASE-GSC-12023-1  
US-PATENT-APPL-SN-576488  
US-PATENT-CLASS-138-89  
US-PATENT-CLASS-148-174  
US-PATENT-CLASS-148-175  
US-PATENT-CLASS-156-612  
US-PATENT-CLASS-156-613  
US-PATENT-CLASS-156-614  
US-PATENT-CLASS-29-572  
US-PATENT-CLASS-357-30  
US-PATENT-CLASS-357-59  
US-PATENT-CLASS-427-113

US-PATENT-CLASS-427-248  
US-PATENT-CLASS-427-249  
US-PATENT-CLASS-427-250  
US-PATENT-CLASS-427-86  
US-PATENT-3,961,997

N76-29217\* # c 05 ..... NASA-CASE-ARC-10470-3  
US-PATENT-APPL-SN-206279  
US-PATENT-APPL-SN-321180  
US-PATENT-APPL-SN-496778  
US-PATENT-CLASS-244-46  
US-PATENT-3,971,535

N76-29347\* # c 17 ..... NASA-CASE-ARC-10849-1  
US-PATENT-APPL-SN-563049  
US-PATENT-CLASS-340-189M  
US-PATENT-CLASS-340-206  
US-PATENT-CLASS-73-493  
US-PATENT-CLASS-73-517R  
US-PATENT-3,972,038

N76-29379\* # c 25 ..... NASA-CASE-LEW-11390-3  
US-PATENT-APPL-SN-247434  
US-PATENT-APPL-SN-380046  
US-PATENT-CLASS-176-11  
US-PATENT-CLASS-176-14  
US-PATENT-CLASS-176-16  
US-PATENT-CLASS-250-400  
US-PATENT-CLASS-250-429  
US-PATENT-CLASS-250-492R  
US-PATENT-3,971,697

N76-29551\* # c 35 ..... NASA-CASE-LAR-10907-1  
US-PATENT-APPL-SN-559845  
US-PATENT-CLASS-250-340  
US-PATENT-CLASS-250-353  
US-PATENT-3,971,940

N76-29552\* # c 35 ..... NASA-CASE-MSC-12617-1  
US-PATENT-APPL-SN-513576  
US-PATENT-CLASS-235-61NV  
US-PATENT-CLASS-235-78M  
US-PATENT-CLASS-235-88M  
US-PATENT-3,971,815

N76-29575\* # c 36 ..... NASA-CASE-NPO-13346-1  
US-PATENT-APPL-SN-533556  
US-PATENT-CLASS-330-4.3  
US-PATENT-CLASS-331-94.5C  
US-PATENT-3,972,008

N76-29588\* # c 37 ..... NASA-CASE-LEW-11949-1  
US-PATENT-APPL-SN-590182  
US-PATENT-CLASS-308-160  
US-PATENT-CLASS-308-163  
US-PATENT-CLASS-308-170  
US-PATENT-3,971,602

N76-29590\* # c 37 ..... NASA-CASE-NPO-13613-1  
US-PATENT-APPL-SN-574208  
US-PATENT-CLASS-62-6  
US-PATENT-3,971,230

N76-29699\* # c 44 ..... NASA-CASE-HON-10862-1  
US-PATENT-APPL-SN-604374  
US-PATENT-CLASS-136-143  
US-PATENT-CLASS-136-30  
US-PATENT-3,972,727

N76-29700\* # c 44 ..... NASA-CASE-NPO-13342-2  
US-PATENT-APPL-SN-390049  
US-PATENT-APPL-SN-548559  
US-PATENT-CLASS-123-1A  
US-PATENT-CLASS-123-3  
US-PATENT-CLASS-23-281  
US-PATENT-CLASS-423-650  
US-PATENT-CLASS-48-215  
US-PATENT-CLASS-48-95  
US-PATENT-3,955,941

N76-29701\* # c 44 ..... NASA-CASE-NPO-13567-1  
US-PATENT-APPL-SN-566493  
US-PATENT-CLASS-417-141  
US-PATENT-CLASS-417-207  
US-PATENT-CLASS-417-209  
US-PATENT-CLASS-417-379  
US-PATENT-CLASS-60-517  
US-PATENT-CLASS-62-6  
US-PATENT-3,972,651

N76-29704\* # c 44 ..... NASA-CASE-NPO-13464-2  
US-PATENT-APPL-SN-428444  
US-PATENT-APPL-SN-553687  
US-PATENT-CLASS-252-373  
US-PATENT-CLASS-42-215  
US-PATENT-CLASS-423-650  
US-PATENT-CLASS-431-163  
US-PATENT-CLASS-431-210  
US-PATENT-CLASS-431-4  
US-PATENT-CLASS-48-197R  
US-PATENT-3,971,847

N76-29891\* # c 51 ..... NASA-CASE-GSC-11917-2  
US-PATENT-APPL-SN-475337  
US-PATENT-APPL-SN-555641  
US-PATENT-CLASS-195-103.5F  
US-PATENT-3,971,703

N76-29894\* # c 52 ..... NASA-CASE-ARC-10583-1  
US-PATENT-APPL-SN-301418

		US-PATENT-CLASS-128-2.1A			US-PATENT-CLASS-136-89			US-PATENT-CLASS-323-22T
		US-PATENT-CLASS-128-2H			US-PATENT-3,968,499			US-PATENT-CLASS-323-23
		US-PATENT-CLASS-128-2P			NASA-CASE-MFS-23167-1			US-PATENT-3,984,799
N76-29895* #	c 52	US-PATENT-3,971,362	N76-31667* #	c 44	US-PATENT-APPL-SN-602618	N77-10429* #	c 33	NASA-CASE-GSC-11963-1
		NASA-CASE-NPO-13644-1			US-PATENT-CLASS-165-10			US-PATENT-APPL-SN-595197
		US-PATENT-APPL-SN-574218			US-PATENT-CLASS-60-659			US-PATENT-CLASS-244-1A
		US-PATENT-CLASS-128-2.05R			US-PATENT-3,977,197			US-PATENT-CLASS-244-42CG
		US-PATENT-CLASS-128-2S	N76-31714* #	c 45	NASA-CASE-LAR-11405-1			US-PATENT-CLASS-317-2D
		US-PATENT-CLASS-338-6			US-PATENT-APPL-SN-537480			US-PATENT-CLASS-324-72
		US-PATENT-3,971,363			US-PATENT-CLASS-23-230R			US-PATENT-3,984,730
N76-29896* #	c 52	NASA-CASE-NPO-13643-1			US-PATENT-CLASS-23-232E	N77-10463* #	c 34	NASA-CASE-MFS-22991-1
		US-PATENT-APPL-SN-578241			US-PATENT-CLASS-23-232R			US-PATENT-APPL-SN-521006
		US-PATENT-CLASS-128-2.05E			US-PATENT-3,977,831			US-PATENT-CLASS-165-164
		US-PATENT-CLASS-128-2.06E	N76-31946* #	c 62	NASA-CASE-GSC-12115-1			US-PATENT-CLASS-165-170
		US-PATENT-CLASS-128-2S			US-PATENT-APPL-SN-262596			US-PATENT-3,983,933
		US-PATENT-CLASS-128-418			US-PATENT-CLASS-340-347SY	N77-10492* #	c 35	NASA-CASE-NPO-13479-1
		US-PATENT-CLASS-128-419P			US-PATENT-3,978,997			US-PATENT-APPL-SN-500981
		US-PATENT-CLASS-73-398AR	N76-31998* #	c 74	NASA-CASE-MSC-12640-1			US-PATENT-CLASS-250-290
		US-PATENT-3,971,364			US-PATENT-APPL-SN-591568			US-PATENT-CLASS-250-291
N76-30053* #	c 74	NASA-CASE-GSC-11782-1			US-PATENT-CLASS-350-162SF			US-PATENT-3,984,681
		US-PATENT-APPL-SN-463925			US-PATENT-3,977,771	N77-10493* #	c 35	NASA-CASE-MFS-23178-1
		US-PATENT-CLASS-250-199	N76-32140* #	c 03	NASA-CASE-MFS-16609-3			US-PATENT-APPL-SN-637247
		US-PATENT-3,971,830			US-PATENT-APPL-SN-307714			US-PATENT-APPL-SN-520338
N76-30131* #	c 91	NASA-CASE-MSC-12423-1			US-PATENT-APPL-SN-511894			US-PATENT-CLASS-250-339
		US-PATENT-APPL-SN-448320			US-PATENT-APPL-SN-82279			US-PATENT-CLASS-250-347
		US-PATENT-CLASS-73-170R			US-PATENT-CLASS-325-114			US-PATENT-CLASS-356-106R
		US-PATENT-CLASS-73-425.2			US-PATENT-CLASS-325-115			US-PATENT-3,984,688
		US-PATENT-CLASS-73-432R			US-PATENT-CLASS-325-186	N77-10584* #	c 43	NASA-CASE-MSC-14472-1
		US-PATENT-3,971,256			US-PATENT-CLASS-343-705			US-PATENT-APPL-SN-502138
N76-30793* #	c 52	US-PATENT-APPL-SN-452768			US-PATENT-3,978,410			US-PATENT-CLASS-235-181
		US-PATENT-CLASS-351-23	N76-32315* #	c 27	NASA-CASE-ARC-10592-2			US-PATENT-CLASS-340-146.3P
		US-PATENT-CLASS-351-30			US-PATENT-APPL-SN-414043			US-PATENT-CLASS-340-146.3Q
		US-PATENT-CLASS-351-36			US-PATENT-CLASS-260-240G			US-PATENT-3,984,671
		US-PATENT-RE-28,921			US-PATENT-CLASS-260-566B	N77-10635* #	c 44	NASA-CASE-MFS-22458-1
N76-31365* #	c 31	NASA-CASE-ARC-10445-1			US-PATENT-3,965,096			US-PATENT-APPL-SN-571458
		US-PATENT-APPL-SN-491418	N76-32457* #	c 33	NASA-CASE-NPO-13553-1			US-PATENT-CLASS-136-89
		US-PATENT-CLASS-313-250			US-PATENT-APPL-SN-616333			US-PATENT-CLASS-29-572
		US-PATENT-CLASS-313-306			US-PATENT-CLASS-343-882			US-PATENT-3,984,256
		US-PATENT-CLASS-313-309			US-PATENT-CLASS-343-915	N77-10636* #	c 44	NASA-CASE-NPO-13560-1
		US-PATENT-CLASS-313-338			US-PATENT-3,978,490			NASA-CASE-NPO-13561-1
		US-PATENT-3,978,364	N76-33835* #	c 52	NASA-CASE-ARC-10994-1			US-PATENT-APPL-SN-487156
N76-31372* #	c 32	NASA-CASE-NPO-13465-1			US-PATENT-APPL-SN-728369			US-PATENT-CLASS-123-3
		US-PATENT-APPL-SN-531575			US-PATENT-CLASS-11645-1			US-PATENT-CLASS-23-281
		US-PATENT-CLASS-179-1SA	N77-10001* #	c 02	NASA-CASE-LAR-11645-1			US-PATENT-CLASS-252-373
		US-PATENT-3,978,287			US-PATENT-APPL-SN-473973			US-PATENT-CLASS-423-650
N76-31409* #	c 33	NASA-CASE-NPO-12134-1			US-PATENT-CLASS-244-113			US-PATENT-CLASS-431-11
		US-PATENT-APPL-SN-536785			US-PATENT-CLASS-244-130			US-PATENT-CLASS-431-116
		US-PATENT-CLASS-313-94			US-PATENT-3,984,070			US-PATENT-CLASS-431-162
		US-PATENT-CLASS-357-63	N77-10071* #	c 09	NASA-CASE-NPO-13528-1			US-PATENT-CLASS-431-170
		US-PATENT-3,978,360			US-PATENT-APPL-SN-521620			US-PATENT-CLASS-431-41
N76-31489* #	c 35	NASA-CASE-GSC-11893-1			US-PATENT-CLASS-73-147			US-PATENT-CLASS-48-116
		US-PATENT-APPL-SN-585420	N77-10112* #	c 15	US-PATENT-3,983,749			US-PATENT-CLASS-48-117
		US-PATENT-CLASS-73-9			NASA-CASE-MFS-20855-1			US-PATENT-CLASS-48-197R
		US-PATENT-3,977,231			US-PATENT-APPL-SN-243374			US-PATENT-CLASS-48-212
N76-31490* #	c 35	NASA-CASE-NPO-13604-1			US-PATENT-CLASS-244-1SD			US-PATENT-CLASS-48-61
		US-PATENT-APPL-SN-574219	N77-10113* #	c 15	US-PATENT-3,744,739			US-PATENT-3,982,910
		US-PATENT-CLASS-356-106S			NASA-CASE-MFS-22787-1	N77-10753* #	c 47	NASA-CASE-MFS-23362-1
		US-PATENT-CLASS-356-114			US-PATENT-APPL-SN-511346			US-PATENT-APPL-SN-637268
		US-PATENT-CLASS-356-209			US-PATENT-CLASS-244-169			US-PATENT-CLASS-250-338
		US-PATENT-CLASS-356-244			US-PATENT-CLASS-244-171			US-PATENT-CLASS-250-339
		US-PATENT-3,977,787			US-PATENT-CLASS-244-3.21			US-PATENT-CLASS-250-347
N76-31512* #	c 36	NASA-CASE-NPO-13490-1			US-PATENT-3,984,072			US-PATENT-CLASS-356-106R
		US-PATENT-APPL-SN-549418	N77-10148* #	c 20	NASA-CASE-LEW-12082-1			US-PATENT-3,984,685
		US-PATENT-CLASS-330-4			US-PATENT-APPL-SN-612964	N77-10780* #	c 52	NASA-CASE-ARC-10855-1
		US-PATENT-CLASS-331-94			US-PATENT-CLASS-313-231.4			US-PATENT-APPL-SN-617612
		US-PATENT-3,978,417			US-PATENT-CLASS-313-240			US-PATENT-CLASS-128-2H
N76-31524* #	c 37	NASA-CASE-NPO-13535-1			US-PATENT-CLASS-313-361			US-PATENT-CLASS-73-343R
		US-PATENT-APPL-SN-563050			US-PATENT-CLASS-315-111.3			US-PATENT-3,983,753
		US-PATENT-CLASS-264-129			US-PATENT-CLASS-60-202	N77-10899* #	c 74	NASA-CASE-MSC-19442-1
		US-PATENT-CLASS-264-181			US-PATENT-3,983,695			US-PATENT-APPL-SN-558600
		US-PATENT-CLASS-264-219	N77-10213* #	c 28	NASA-CASE-LAR-11995-1			US-PATENT-CLASS-356-237
		US-PATENT-CLASS-264-304			US-PATENT-APPL-SN-238826			US-PATENT-CLASS-356-239
		US-PATENT-CLASS-264-305			US-PATENT-CLASS-102-99			US-PATENT-3,985,454
		US-PATENT-CLASS-264-308			US-PATENT-CLASS-264-3R	N77-11397* #	c 37	NASA-CASE-LAR-11549-1
		US-PATENT-CLASS-264-310			US-PATENT-CLASS-86-1R			US-PATENT-APPL-SN-537979
		US-PATENT-CLASS-264-318	N77-10229* #	c 31	US-PATENT-3,983,780			US-PATENT-CLASS-219-118
		US-PATENT-CLASS-264-334			NASA-CASE-NPO-13459-1			US-PATENT-CLASS-219-92
		US-PATENT-CLASS-427-230			US-PATENT-APPL-SN-598967			US-PATENT-3,988,561
		US-PATENT-3,978,187			US-PATENT-CLASS-62-217	N77-12239* #	c 32	NASA-CASE-MSC-12506-1
N76-31562* #	c 39	NASA-CASE-MSC-19372-1			US-PATENT-CLASS-62-514JT			US-PATENT-APPL-SN-545283
		US-PATENT-APPL-SN-517995	N77-10392* #	c 32	US-PATENT-3,983,714			US-PATENT-CLASS-340-347DD
		US-PATENT-CLASS-182-178			NASA-CASE-LAR-11827-1			US-PATENT-3,988,729
		US-PATENT-CLASS-29-467			US-PATENT-APPL-SN-412379	N77-12240* #	c 32	NASA-CASE-NPO-13543-1
		US-PATENT-CLASS-29-526			US-PATENT-APPL-SN-561764			NASA-CASE-NPO-13545-1
		US-PATENT-CLASS-52-236			US-PATENT-CLASS-178-88			US-PATENT-APPL-SN-589173
		US-PATENT-CLASS-52-637			US-PATENT-CLASS-235-150.1			US-PATENT-CLASS-325-41
		US-PATENT-CLASS-52-648			US-PATENT-CLASS-235-156			US-PATENT-CLASS-340-146.1AL
		US-PATENT-CLASS-52-651			US-PATENT-CLASS-325-323			US-PATENT-CLASS-340-146.1AQ
		US-PATENT-CLASS-52-726			US-PATENT-CLASS-325-349			US-PATENT-CLASS-340-146.1AV
		US-PATENT-CLASS-52-745			US-PATENT-CLASS-325-476			US-PATENT-3,988,677
		US-PATENT-CLASS-52-749	N77-10428* #	c 33	US-PATENT-3,984,634			NASA-CASE-MFS-23062-1
		US-PATENT-3,977,147			NASA-CASE-NPO-13512-1	N77-12402* #	c 37	US-PATENT-APPL-SN-591569
N76-31666* #	c 44	NASA-CASE-NPO-13087-2			US-PATENT-APPL-SN-533734			US-PATENT-CLASS-60-527
		US-PATENT-APPL-SN-296622			US-PATENT-CLASS-321-19			US-PATENT-3,987,630
		US-PATENT-APPL-SN-462341			US-PATENT-CLASS-321-2	N77-12721* #	c 60	NASA-CASE-NPO-13428-1
		US-PATENT-CLASS-136-206			US-PATENT-CLASS-323-DIG.1			NASA-CASE-NPO-13447-1

			US-PATENT-APPL-SN-495022				US-PATENT-CLASS-242-204				US-PATENT-CLASS-360-25
			US-PATENT-CLASS-179-158A				US-PATENT-CLASS-242-210				US-PATENT-CLASS-360-31
			US-PATENT-CLASS-328-111				US-PATENT-CLASS-242-57				US-PATENT-4,003,084
			US-PATENT-CLASS-340-172.5				US-PATENT-3,995,789	N77-17484* #	c 37		NASA-CASE-GSC-11878-1
			US-PATENT-3,988,716				NASA-CASE-LEW-11496-1				US-PATENT-APPL-SN-593142
N77-13217* #	c 27		NASA-CASE-NPO-13666-1	N77-14580* #	c 44		US-PATENT-APPL-SN-645508				US-PATENT-CLASS-308-10
			US-PATENT-APPL-SN-633877				US-PATENT-CLASS-136-89				US-PATENT-4,000,929
			US-PATENT-CLASS-29-182.5				US-PATENT-CLASS-204-182	N77-17495* #	c 38		NASA-CASE-GSC-11902-1
			US-PATENT-3,990,860				US-PATENT-3,996,067				US-PATENT-APPL-SN-565289
N77-13315* #	c 33		NASA-CASE-NPO-11515-1	N77-14581* #	c 44		NASA-CASE-LEW-12220-1				US-PATENT-CLASS-235-92CA
			US-PATENT-APPL-SN-139596				US-PATENT-APPL-SN-606891				US-PATENT-CLASS-235-92CT
			US-PATENT-CLASS-307-233				US-PATENT-CLASS-320-2				US-PATENT-CLASS-235-92DN
			US-PATENT-CLASS-307-295				US-PATENT-CLASS-429-23				US-PATENT-CLASS-235-92R
			US-PATENT-CLASS-328-133				US-PATENT-CLASS-429-34				US-PATENT-4,001,552
			US-PATENT-3,750,035				US-PATENT-3,996,084	N77-18154* #	c 07		NASA-CASE-ARC-10761-1
N77-13418* #	c 37		NASA-CASE-ARC-10905-1	N77-14735* #	c 52		NASA-CASE-MFS-23225-1				US-PATENT-APPL-SN-612899
			US-PATENT-APPL-SN-618594				US-PATENT-APPL-SN-612965				US-PATENT-CLASS-137-15.1
			US-PATENT-CLASS-219-300				US-PATENT-CLASS-3-1.2				US-PATENT-CLASS-244-53B
			US-PATENT-CLASS-219-304				US-PATENT-CLASS-3-14				US-PATENT-4,007,891
			US-PATENT-CLASS-239-171				US-PATENT-3,995,324	N77-18307* #	c 32		NASA-CASE-MFS-23303-1
			US-PATENT-CLASS-252-358A	N77-14736* #	c 52		NASA-CASE-ARC-11007-1				US-PATENT-APPL-SN-676957
			US-PATENT-3,990,987				US-PATENT-APPL-SN-652948				US-PATENT-CLASS-333-70R
N77-14025* #	c 07		NASA-CASE-LEW-12419-1				US-PATENT-CLASS-128-2H				US-PATENT-CLASS-333-75
			US-PATENT-APPL-SN-579375				US-PATENT-CLASS-128-379				US-PATENT-CLASS-333-76
			US-PATENT-CLASS-416-153				US-PATENT-CLASS-128-400				US-PATENT-CLASS-333-82B
			US-PATENT-CLASS-416-160				US-PATENT-CLASS-128-402				US-PATENT-4,007,434
			US-PATENT-CLASS-416-162				US-PATENT-3,995,621	N77-18382* #	c 34		NASA-CASE-LAR-10805-2
			US-PATENT-CLASS-416-165	N77-14737* #	c 52		NASA-CASE-MSC-14276-1				US-PATENT-APPL-SN-428992
			US-PATENT-CLASS-416-167				US-PATENT-APPL-SN-557430				US-PATENT-APPL-SN-576240
			US-PATENT-CLASS-60-226R				US-PATENT-CLASS-250-363R				US-PATENT-CLASS-244-117A
			US-PATENT-3,994,128				US-PATENT-CLASS-250-444				US-PATENT-CLASS-427-160
N77-14292* #	c 32		NASA-CASE-LAR-11607-1				US-PATENT-CLASS-250-498				US-PATENT-CLASS-427-322
			US-PATENT-APPL-SN-617895				US-PATENT-3,996,471				US-PATENT-CLASS-428-35
			US-PATENT-CLASS-325-145	N77-14738* #	c 52		NASA-CASE-KSC-10849-1				US-PATENT-CLASS-428-421
			US-PATENT-CLASS-332-22				US-PATENT-APPL-SN-613734				US-PATENT-CLASS-428-461
			US-PATENT-CLASS-332-23R				US-PATENT-CLASS-128-418				US-PATENT-CLASS-428-474
			US-PATENT-3,996,532				US-PATENT-CLASS-3-1.1				US-PATENT-4,008,348
N77-14333* #	c 33		NASA-CASE-GSC-11789-1				US-PATENT-CLASS-339-252R	N77-18417* #	c 35		NASA-CASE-ARC-10898-1
			US-PATENT-APPL-SN-538982				US-PATENT-3,995,844				US-PATENT-APPL-SN-625732
			US-PATENT-CLASS-317-31	N77-14751* #	c 60		NASA-CASE-GSC-11839-1				US-PATENT-CLASS-73-12
			US-PATENT-CLASS-321-13				US-PATENT-APPL-SN-468614				US-PATENT-CLASS-73-432SD
			US-PATENT-3,996,506				US-PATENT-CLASS-235-152				US-PATENT-CLASS-73-71.6
N77-14334* #	c 33		NASA-CASE-GSC-12018-1				US-PATENT-CLASS-250-227				US-PATENT-4,007,623
			US-PATENT-APPL-SN-635531				US-PATENT-CLASS-340-172.5	N77-18891* #	c 73		NASA-CASE-NPO-13121-1
			US-PATENT-CLASS-329-122				US-PATENT-CLASS-350-96R				US-PATENT-APPL-SN-294727
			US-PATENT-CLASS-329-124				US-PATENT-3,996,455				US-PATENT-CLASS-310-4R
			US-PATENT-CLASS-331-23	N77-17029* #	c 05		NASA-CASE-ARC-10807-1				US-PATENT-CLASS-313-311
			US-PATENT-CLASS-331-36C				US-PATENT-APPL-SN-513612				US-PATENT-CLASS-346R
			US-PATENT-CLASS-332-30V				US-PATENT-CLASS-416-104				US-PATENT-4,008,407
			US-PATENT-3,997,848				US-PATENT-CLASS-416-138	N77-18893* #	c 74		NASA-CASE-MSC-14883-1
N77-14335* #	c 33		NASA-CASE-MFS-22560-1				US-PATENT-CLASS-416-141				US-PATENT-APPL-SN-612967
			US-PATENT-APPL-SN-589233				US-PATENT-3,999,886				US-PATENT-CLASS-358-44
			US-PATENT-CLASS-250-214A	N77-17059* #	c 07		NASA-CASE-LEW-12760-1				US-PATENT-4,004,292
			US-PATENT-CLASS-330-14				US-PATENT-APPL-SN-589925	N77-19056* #	c 04		NASA-CASE-LAR-11387-2
			US-PATENT-CLASS-330-28				US-PATENT-CLASS-60-226A				US-PATENT-APPL-SN-531647
			US-PATENT-CLASS-330-59				US-PATENT-CLASS-60-228				US-PATENT-APPL-SN-623156
			US-PATENT-3,996,462				US-PATENT-4,005,574				US-PATENT-CLASS-33-35B
N77-14406* #	c 35		NASA-CASE-NPO-13663-1	N77-17143* #	c 20		NASA-CASE-XLA-1349				US-PATENT-CLASS-73-178R
			US-PATENT-APPL-SN-634205				US-PATENT-APPL-SN-256493				US-PATENT-4,006,631
			US-PATENT-CLASS-250-289				US-PATENT-APPL-SN-54552	N77-19076* #	c 09		NASA-CASE-ARC-10979-1
			US-PATENT-CLASS-250-298				US-PATENT-CLASS-102-49.3				US-PATENT-APPL-SN-608483
			US-PATENT-3,996,464				US-PATENT-CLASS-264-3R				US-PATENT-CLASS-124-6
N77-14407* #	c 35		NASA-CASE-LAR-11648-1				US-PATENT-CLASS-86-1R				US-PATENT-CLASS-244-63
			US-PATENT-APPL-SN-645571				US-PATENT-CLASS-86-20R				US-PATENT-3,989,206
			US-PATENT-CLASS-73-133R				US-PATENT-4,000,682	N77-19170* #	c 24		NASA-CASE-LEW-12550-1
			US-PATENT-3,995,476	N77-17161* #	c 23		NASA-CASE-MSC-14426-1				US-PATENT-APPL-SN-596905
N77-14408* #	c 35		NASA-CASE-ARC-10448-3				US-PATENT-APPL-SN-450504				US-PATENT-CLASS-416-224
			US-PATENT-APPL-SN-221670				US-PATENT-CLASS-23-230B				US-PATENT-CLASS-416-230
			US-PATENT-APPL-SN-318848				US-PATENT-CLASS-23-230M				US-PATENT-4,006,999
			US-PATENT-CLASS-250-396				US-PATENT-CLASS-23-230R	N77-19171* #	c 24		NASA-CASE-LEW-12619-1
			US-PATENT-3,996,468				US-PATENT-CLASS-23-231				US-PATENT-APPL-SN-462424
N77-14409* #	c 35		NASA-CASE-NPO-13540-1				US-PATENT-CLASS-23-232C				US-PATENT-CLASS-204-16
			US-PATENT-APPL-SN-526450				US-PATENT-CLASS-23-232R				US-PATENT-CLASS-204-40
			US-PATENT-CLASS-136-232				US-PATENT-CLASS-23-254R				US-PATENT-CLASS-204-9
			US-PATENT-CLASS-136-233				US-PATENT-CLASS-55-197				US-PATENT-CLASS-29-527.2
			US-PATENT-3,996,070				US-PATENT-CLASS-55-67				US-PATENT-3,989,602
N77-14411* #	c 35		NASA-CASE-NPO-13683-1				US-PATENT-CLASS-65-74	N77-19353* #	c 34		NASA-CASE-ARC-10912-1
			US-PATENT-APPL-SN-598284				US-PATENT-CLASS-73-23.1				US-PATENT-APPL-SN-623187
			US-PATENT-CLASS-250-343				US-PATENT-CLASS-73-61.1C				US-PATENT-CLASS-62-100
			US-PATENT-CLASS-356-201				US-PATENT-4,003,257				US-PATENT-CLASS-62-121
			US-PATENT-CLASS-356-204	N77-17351* #	c 33		NASA-CASE-MFS-23181-1				US-PATENT-CLASS-62-269
			US-PATENT-CLASS-358-97				US-PATENT-APPL-SN-566495				US-PATENT-CLASS-62-315
			US-PATENT-3,995,960				US-PATENT-CLASS-331-114				US-PATENT-4,007,601
N77-14477* #	c 37		NASA-CASE-FRC-10081-1				US-PATENT-CLASS-331-177V	N77-19385* #	c 35		NASA-CASE-MSC-14653-1
			US-PATENT-APPL-SN-598504				US-PATENT-CLASS-332-18				US-PATENT-APPL-SN-521816
			US-PATENT-CLASS-280-432				US-PATENT-CLASS-332-30V				US-PATENT-CLASS-177-1
			US-PATENT-3,995,877				US-PATENT-4,003,004				US-PATENT-CLASS-177-208
N77-14478* #	c 37		NASA-CASE-LAR-11658-1	N77-17354* #	c 33		NASA-CASE-LEW-11881-1				US-PATENT-CLASS-73-432R
			US-PATENT-APPL-SN-825759				US-PATENT-APPL-SN-598968				US-PATENT-3,988,933
			US-PATENT-CLASS-83-451				US-PATENT-CLASS-307-229	N77-19416* #	c 36		NASA-CASE-XNP-04167-3
			US-PATENT-CLASS-83-467R				US-PATENT-CLASS-307-230				US-PATENT-APPL-SN-170544
			US-PATENT-3,995,522				US-PATENT-CLASS-328-161				US-PATENT-APPL-SN-479357
N77-14479* #	c 37		NASA-CASE-GSC-11960-1				US-PATENT-4,001,602				US-PATENT-CLASS-331-84.5D
			US-PATENT-APPL-SN-629456	N77-17426* #	c 35		NASA-CASE-MFS-22671-2				US-PATENT-CLASS-331-84.5E
			US-PATENT-CLASS-242-187				US-PATENT-APPL-SN-419831				US-PATENT-4,007,430
			US-PATENT-CLASS-242-193				US-PATENT-APPL-SN-561956				

N77-19457* #	c 37	NASA-CASE-MFS-15218-1 US-PATENT-APPL-SN-387094 US-PATENT-CLASS-197-188 US-PATENT-CLASS-197-190 US-PATENT-3,989,136	US-PATENT-APPL-SN-385059 US-PATENT-CLASS-313-161 US-PATENT-CLASS-313-184 US-PATENT-CLASS-313-224 US-PATENT-CLASS-313-32 US-PATENT-CLASS-315-344 US-PATENT-3,881,132	N77-23106* #	c 07	NASA-CASE-LEW-12830-1 US-PATENT-APPL-SN-596641 US-PATENT-APPL-SN-655149 US-PATENT-CLASS-123-122E US-PATENT-CLASS-123-41.33 US-PATENT-CLASS-137-101 US-PATENT-CLASS-415-180 US-PATENT-CLASS-60-39.03 US-PATENT-CLASS-60-39.28R US-PATENT-CLASS-60-39.66 US-PATENT-4,020,632		
N77-19458* #	c 37	NASA-CASE-GSC-11883-1 NASA-CASE-GSC-11974-1 NASA-CASE-GSC-11975-1 US-PATENT-APPL-SN-596787 US-PATENT-CLASS-310-4A US-PATENT-CLASS-337-334 US-PATENT-CLASS-340-224 US-PATENT-CLASS-60-527 US-PATENT-CLASS-75-122.7 US-PATENT-CLASS-75-170 US-PATENT-4,010,455	N77-21316* #	c 33	NASA-CASE-NPO-10790-1 US-PATENT-APPL-SN-841278 US-PATENT-CLASS-313-175 US-PATENT-CLASS-313-180 US-PATENT-CLASS-313-184 US-PATENT-CLASS-315-108 US-PATENT-CLASS-315-110 US-PATENT-3,621,330	N77-23482* #	c 37	NASA-CASE-LAR-11563-1 US-PATENT-APPL-SN-672815 US-PATENT-CLASS-29-DIG.35 US-PATENT-CLASS-29-447 US-PATENT-CLASS-403-273 US-PATENT-CLASS-53-9 US-PATENT-4,017,959
N77-19571* #	c 44	NASA-CASE-LEW-11549-1 US-PATENT-APPL-SN-510677 US-PATENT-CLASS-136-89 US-PATENT-3,989,541	N77-21392* #	c 35	NASA-CASE-NPO-10711-1 US-PATENT-APPL-SN-844315 US-PATENT-CLASS-179-100.2C US-PATENT-3,697,705	N77-23483* #	c 37	NASA-CASE-MFS-23088-1 US-PATENT-APPL-SN-602617 US-PATENT-CLASS-213-81 US-PATENT-CLASS-214-1CM US-PATENT-CLASS-244-161 US-PATENT-4,018,409
N77-19760* #	c 60	NASA-CASE-ARC-10899-1 US-PATENT-APPL-SN-576774 US-PATENT-CLASS-178-69.5R US-PATENT-CLASS-179-15BS US-PATENT-CLASS-340-172.5 US-PATENT-3,990,049	N77-21844* #	c 54	NASA-CASE-MFS-23074-1 US-PATENT-APPL-SN-623188 US-PATENT-CLASS-188-291 US-PATENT-CLASS-254-158 US-PATENT-4,018,423	N77-24328* #	c 32	NASA-CASE-ARC-10984-1 US-PATENT-APPL-SN-690815 US-PATENT-CLASS-358-133 US-PATENT-CLASS-358-138 US-PATENT-4,025,950
N77-20162* #	c 20	NASA-CASE-LEW-12048-1 US-PATENT-APPL-SN-665033 US-PATENT-CLASS-313-230 US-PATENT-CLASS-313-231.3 US-PATENT-CLASS-313-380 US-PATENT-CLASS-315-111.3 US-PATENT-CLASS-315-111.6 US-PATENT-CLASS-60-202 US-PATENT-4,011,719	N77-21941* #	c 74	NASA-CASE-NPO-11429-1 US-PATENT-APPL-SN-95189 US-PATENT-CLASS-240-41.35R US-PATENT-CLASS-240-41R US-PATENT-CLASS-240-46.13 US-PATENT-CLASS-356-236 US-PATENT-3,711,701	N77-24331* #	c 32	NASA-CASE-MSC-14840-1 US-PATENT-APPL-SN-692414 US-PATENT-CLASS-178-88 US-PATENT-CLASS-325-346 US-PATENT-CLASS-329-104 US-PATENT-CLASS-329-122 US-PATENT-4,027,265
N77-20201* #	c 26	NASA-CASE-LEW-12245-1 US-PATENT-APPL-SN-584094 US-PATENT-CLASS-148-12.7N US-PATENT-CLASS-148-162 US-PATENT-CLASS-148-2 US-PATENT-CLASS-148-20.3 US-PATENT-CLASS-148-32.5 US-PATENT-CLASS-75-170 US-PATENT-4,012,237	N77-22388* #	c 33	NASA-CASE-NPO-10870-1 NASA-CASE-NPO-11191-1 NASA-CASE-NPO-11403-1 US-PATENT-APPL-SN-108810 US-PATENT-CLASS-313-146 US-PATENT-CLASS-313-182 US-PATENT-CLASS-313-60 US-PATENT-3,736,453	N77-24375* #	c 33	NASA-CASE-MSC-12709-1 US-PATENT-APPL-SN-630583 US-PATENT-CLASS-307-225R US-PATENT-CLASS-328-38 US-PATENT-CLASS-328-39 US-PATENT-CLASS-328-4-6 US-PATENT-CLASS-328-63 US-PATENT-4,025,866
N77-20289* #	c 32	NASA-CASE-NPO-13753-1 US-PATENT-APPL-SN-658449 US-PATENT-CLASS-325-4 US-PATENT-CLASS-343-100ST US-PATENT-CLASS-343-6.BR US-PATENT-CLASS-343-8.5R US-PATENT-4,012,696	N77-22449* #	c 35	NASA-CASE-LAR-11825-1 US-PATENT-APPL-SN-632112 US-PATENT-CLASS-73-88R US-PATENT-4,018,065	N77-24423* #	c 34	NASA-CASE-LAR-12045-1 US-PATENT-APPL-SN-682416 US-PATENT-CLASS-259-4R US-PATENT-CLASS-261-DIG.75 US-PATENT-CLASS-261-123 US-PATENT-4,026,527
N77-20399* #	c 35	NASA-CASE-ARC-10716-1 US-PATENT-APPL-SN-403695 US-PATENT-CLASS-235-150.2 US-PATENT-CLASS-235-150.25 US-PATENT-CLASS-244-165 US-PATENT-CLASS-244-171 US-PATENT-CLASS-244-3.21 US-PATENT-4,012,018	N77-22450* #	c 35	NASA-CASE-MFS-23281-1 US-PATENT-APPL-SN-657995 US-PATENT-CLASS-73-15.6 US-PATENT-CLASS-73-95 US-PATENT-4,018,080	N77-24454* #	c 35	NASA-CASE-ARC-10900-1 US-PATENT-APPL-SN-630579 US-PATENT-CLASS-338-229 US-PATENT-CLASS-338-28 US-PATENT-4,025,891
N77-20400* #	c 35	NASA-CASE-ARC-10911-1 US-PATENT-APPL-SN-610802 US-PATENT-CLASS-338-28 US-PATENT-CLASS-73-204 US-PATENT-4,011,756	N77-22479* #	c 37	NASA-CASE-NPO-10316-1 US-PATENT-APPL-SN-703107 US-PATENT-CLASS-60-53 US-PATENT-3,478,514	N77-24455* #	c 35	NASA-CASE-GSC-12077-1 US-PATENT-APPL-SN-635519 US-PATENT-CLASS-65-108 US-PATENT-CLASS-65-59A US-PATENT-CLASS-6554 US-PATENT-CLASS-6564 US-PATENT-4,025,327
N77-20401* #	c 35	NASA-CASE-MFS-23267-1 US-PATENT-APPL-SN-653422 US-PATENT-CLASS-126-270 US-PATENT-CLASS-126-271 US-PATENT-CLASS-250-203R US-PATENT-4,011,854	N77-22480* #	c 37	NASA-CASE-NPO-13058-1 NASA-CASE-NPO-13096-1 US-PATENT-APPL-SN-403154 US-PATENT-CLASS-214-18.1CB US-PATENT-3,896,955	N77-25498* #	c 36	NASA-CASE-GSC-11571-1 US-PATENT-APPL-SN-646704 US-PATENT-CLASS-331-94.5S US-PATENT-4,025,875
N77-20882* #	c 74	NASA-CASE-LAR-11782-1 US-PATENT-APPL-SN-608482 US-PATENT-CLASS-350-145 US-PATENT-CLASS-350-174 US-PATENT-4,012,123	N77-22482* #	c 37	NASA-CASE-MSC-19536-1 US-PATENT-APPL-SN-658450 US-PATENT-CLASS-74-96 US-PATENT-4,018,092	N77-25501* #	c 36	NASA-CASE-ARC-10970-1 US-PATENT-APPL-SN-691046 US-PATENT-CLASS-250-574 US-PATENT-CLASS-350-100 US-PATENT-CLASS-350-102 US-PATENT-CLASS-356-28 US-PATENT-4,026,655
N77-21267* #	c 32	NASA-CASE-LAR-11390-1 US-PATENT-APPL-SN-662176 US-PATENT-CLASS-340-5H US-PATENT-CLASS-343-18B US-PATENT-CLASS-343-5CM US-PATENT-CLASS-343-5MM US-PATENT-4,019,179	N77-22606* #	c 44	NASA-CASE-LEW-12364-1 US-PATENT-APPL-SN-707124 US-PATENT-CLASS-253-317 US-PATENT-CLASS-429-105 US-PATENT-CLASS-429-107 US-PATENT-CLASS-429-190 US-PATENT-4,018,971	N77-25502* #	c 36	NASA-CASE-NPO-13147-1 US-PATENT-APPL-SN-317310 US-PATENT-CLASS-330-4.3 US-PATENT-CLASS-331-94.5D US-PATENT-CLASS-331-94.5P US-PATENT-4,027,273
N77-21314* #	c 33	NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828	N77-22794* #	c 51	NASA-CASE-GSC-12039-1 US-PATENT-APPL-SN-572991 US-PATENT-CLASS-195-103.5K US-PATENT-CLASS-195-103.5R US-PATENT-4,014,745	N77-25769* #	c 51	NASA-CASE-LAR-10773-3 US-PATENT-APPL-SN-125235 US-PATENT-APPL-SN-314656 US-PATENT-APPL-SN-623238 US-PATENT-CLASS-195-1.8 US-PATENT-4,018,649
N77-21315* #	c 33	NASA-CASE-NPO-11510-1 US-PATENT-APPL-SN-173178	N77-22950* #	c 74	NASA-CASE-ARC-10976-1 US-PATENT-APPL-SN-665032 US-PATENT-CLASS-356-171 US-PATENT-4,018,533	N77-25772* #	c 52	NASA-CASE-KSC-11030-1 US-PATENT-APPL-SN-709849 US-PATENT-CLASS-128-1R US-PATENT-CLASS-3-1 US-PATENT-CLASS-339,12R US-PATENT-4,025,964
			N77-22951* #	c 74	NASA-CASE-NPO-13722-1 US-PATENT-APPL-SN-616472 US-PATENT-CLASS-250-203R US-PATENT-CLASS-250-211K US-PATENT-CLASS-356-141 US-PATENT-CLASS-356-152 US-PATENT-CLASS-356-172 US-PATENT-4,018,532	N77-26385* #	c 33	NASA-CASE-LEW-11978-1 US-PATENT-APPL-SN-708658 US-PATENT-CLASS-204-32A US-PATENT-CLASS-29-597 US-PATENT-CLASS-29-622

		US-PATENT-CLASS-29-628				US-PATENT-CLASS-8-3				US-PATENT-4,039,347
		US-PATENT-CLASS-29-630E				US-PATENT-CLASS-8-94.11				NASA-CASE-GSC-12017-1
		US-PATENT-4,023,266				US-PATENT-4,029,470				US-PATENT-APPL-SN-645510
N77-26386* #	c 33	NASA-CASE-GSC-11824-1	N77-26118* #	c 07	NASA-CASE-LAR-11310-1					US-PATENT-CLASS-325-30
		US-PATENT-APPL-SN-583486			US-PATENT-APPL-SN-394898					US-PATENT-CLASS-325-42
		US-PATENT-CLASS-318-138			US-PATENT-CLASS-415-145					US-PATENT-CLASS-325-473
		US-PATENT-CLASS-318-227			US-PATENT-CLASS-60-226R					US-PATENT-CLASS-325-65
		US-PATENT-CLASS-318-254			US-PATENT-CLASS-60-263					US-PATENT-4,041,391
		US-PATENT-4,027,212			US-PATENT-4,033,119					N77-30309* #
N77-26387* #	c 33	NASA-CASE-LAR-11389-1	N77-28225* #	c 24	NASA-CASE-MS-C-12631-1					NASA-CASE-GSC-11898-1
		US-PATENT-APPL-SN-229143			US-PATENT-APPL-SN-568541					US-PATENT-APPL-SN-566494
		US-PATENT-APPL-SN-340862			US-PATENT-CLASS-156-229					US-PATENT-CLASS-179-1SA
		US-PATENT-CLASS-310-111			US-PATENT-CLASS-244-123					US-PATENT-CLASS-179-1SP
		US-PATENT-CLASS-310-168			US-PATENT-CLASS-428-141					US-PATENT-4,039,754
		US-PATENT-CLASS-322-96			US-PATENT-CLASS-428-161					N77-30365* #
		US-PATENT-3,849,720			US-PATENT-CLASS-428-425					c 33
N77-26477* #	c 36	NASA-CASE-NPO-13550-1			US-PATENT-CLASS-428-457					NASA-CASE-NPO-13812-1
		US-PATENT-APPL-SN-483301			US-PATENT-CLASS-428-458					US-PATENT-APPL-SN-694855
		US-PATENT-CLASS-250-281			US-PATENT-4,032,089					US-PATENT-CLASS-307-64
		US-PATENT-CLASS-250-282			NASA-CASE-LEW-11573-1					US-PATENT-CLASS-363-53
		US-PATENT-CLASS-250-283	N77-28265* #	c 26	US-PATENT-APPL-SN-625733					US-PATENT-CLASS-363-70
		US-PATENT-CLASS-250-423P			US-PATENT-CLASS-228-190					US-PATENT-4,039,923
		US-PATENT-4,031,389			US-PATENT-CLASS-228-194					N77-30399* #
N77-26919* #	c 71	NASA-CASE-NPO-13673-1			US-PATENT-CLASS-228-232					c 34
		US-PATENT-APPL-SN-613004			US-PATENT-4,033,504					NASA-CASE-MFS-19287-1
		US-PATENT-CLASS-330-5.5			NASA-CASE-GSC-12053-1					US-PATENT-APPL-SN-641802
		US-PATENT-CLASS-331-107A	N77-28346* #	c 32	US-PATENT-APPL-SN-667930					US-PATENT-CLASS-137-207
		US-PATENT-CLASS-333-72			US-PATENT-CLASS-250-199					US-PATENT-CLASS-137-209
		US-PATENT-4,025,876			US-PATENT-CLASS-250-238					US-PATENT-CLASS-60-259
N77-26942* #	c 74	NASA-CASE-GSC-12058-1			US-PATENT-4,033,882					US-PATENT-CLASS-62-55
		US-PATENT-APPL-SN-680938			NASA-CASE-LEW-12444-1					US-PATENT-4,039,000
		US-PATENT-CLASS-250-199	N77-28385* #	c 33	US-PATENT-APPL-SN-583485					N77-30436* #
		US-PATENT-4,025,783			US-PATENT-CLASS-123-148CB					c 35
N77-27116* #	c 07	NASA-CASE-LEW-12608-1			US-PATENT-CLASS-123-148E					NASA-CASE-MFS-23175-1
		US-PATENT-APPL-SN-680067			US-PATENT-CLASS-315-176					US-PATENT-APPL-SN-667928
		US-PATENT-CLASS-416-220R			US-PATENT-4,033,316					US-PATENT-CLASS-324-163
		US-PATENT-CLASS-416-221	N77-28486* #	c 37	NASA-CASE-LEW-11158-1					US-PATENT-CLASS-324-165
		US-PATENT-4,033,705			US-PATENT-APPL-SN-663008					US-PATENT-CLASS-324-174
N77-27131* #	c 09	NASA-CASE-LAR-11883-1			US-PATENT-CLASS-308-5R					US-PATENT-CLASS-340-271
		US-PATENT-APPL-SN-662175			US-PATENT-CLASS-308-73					US-PATENT-CLASS-340-347P
		US-PATENT-CLASS-73-15R			US-PATENT-CLASS-308-9					US-PATENT-CLASS-340-347SY
		US-PATENT-4,027,524			US-PATENT-4,035,037					US-PATENT-4,039,946
N77-27187* #	c 24	NASA-CASE-MFS-22926-1	N77-28487* #	c 37	NASA-CASE-MS-C-14905-1					N77-30749* #
		US-PATENT-APPL-SN-557565			US-PATENT-APPL-SN-708795					c 54
		US-PATENT-CLASS-164-60			US-PATENT-CLASS-128-DIG.12					NASA-CASE-KSC-11004-1
		US-PATENT-CLASS-75-135			US-PATENT-CLASS-128-214F					US-PATENT-APPL-SN-710032
		US-PATENT-CLASS-75-139			US-PATENT-CLASS-222-61					US-PATENT-CLASS-3-2
		US-PATENT-CLASS-75-65R			US-PATENT-CLASS-222-95					US-PATENT-CLASS-3-21
		US-PATENT-4,029,500			US-PATENT-4,033,479					US-PATENT-4,038,705
N77-27188* #	c 24	NASA-CASE-LEW-12118-1	N77-28511* #	c 39	NASA-CASE-MFS-23299-1					N77-31308* #
		US-PATENT-APPL-SN-616332			US-PATENT-APPL-SN-700673					c 27
		US-PATENT-CLASS-428-301			US-PATENT-CLASS-73-67.7					NASA-CASE-NPO-11609-2
		US-PATENT-CLASS-428-328			US-PATENT-CLASS-73-88R					US-PATENT-APPL-SN-228229
		US-PATENT-CLASS-428-368			US-PATENT-4,033,182					US-PATENT-APPL-SN-674700
		US-PATENT-CLASS-428-418	N77-28716* #	c 52	NASA-CASE-LEW-12258-1					US-PATENT-CLASS-210-DIG.27
		US-PATENT-CLASS-428-457			US-PATENT-APPL-SN-676433					US-PATENT-CLASS-210-40
		US-PATENT-CLASS-428-902			US-PATENT-CLASS-128-1R					US-PATENT-CLASS-260-2.5A
		US-PATENT-CLASS-428-911			US-PATENT-CLASS-128-303R					US-PATENT-CLASS-260-2.5AM
		US-PATENT-4,029,838			US-PATENT-4,033,349					US-PATENT-CLASS-260-2.5AY
N77-27345* #	c 34	NASA-CASE-ARC-10974-1	N77-28717* #	c 52	NASA-CASE-MS-C-14623-1					US-PATENT-CLASS-260-77.5AP
		US-PATENT-APPL-SN-667010			US-PATENT-APPL-SN-637269					US-PATENT-4,039-489
		US-PATENT-CLASS-73-189			US-PATENT-CLASS-128-DIG.4					N77-31350* #
		US-PATENT-CLASS-73-228			US-PATENT-CLASS-128-2.1E					c 32
		US-PATENT-4,028,939			US-PATENT-CLASS-128-410					NASA-CASE-GSC-12075-1
N77-27386* #	c 35	NASA-CASE-GSC-12059-1			US-PATENT-4,033,334					US-PATENT-APPL-SN-562499
		US-PATENT-APPL-SN-680957	N77-28932* #	c 74	NASA-CASE-GSC-11989-1					US-PATENT-CLASS-343-17.7
		US-PATENT-CLASS-331-94.5D			US-PATENT-APPL-SN-645500					US-PATENT-4,042,926
		US-PATENT-CLASS-331-94.5T			US-PATENT-CLASS-350-162SF					N77-31404* #
		US-PATENT-CLASS-350-253			US-PATENT-CLASS-350-202					c 33
		US-PATENT-4,030,047			US-PATENT-CLASS-350-299					NASA-CASE-ARC-10897-1
N77-27387* #	c 35	NASA-CASE-NPO-11103-1			US-PATENT-4,035,062					US-PATENT-APPL-SN-625781
		US-PATENT-APPL-SN-3654			NASA-CASE-NPO-13707-1					US-PATENT-CLASS-323-93
		US-PATENT-CLASS-73-84	N77-28933* #	c 74	US-PATENT-APPL-SN-617202					US-PATENT-CLASS-324-60
		US-PATENT-3,823,359			US-PATENT-CLASS-350-288					US-PATENT-CLASS-340-200
N77-27368* #	c 35	NASA-CASE-MS-C-12327-1			US-PATENT-CLASS-350-310					US-PATENT-CLASS-340-347SH
		US-PATENT-APPL-SN-19572			US-PATENT-CLASS-350-320					US-PATENT-4,040,041
		US-PATENT-CLASS-73-362AR			US-PATENT-4,035,065					N77-31465* #
		US-PATENT-3,613,454	N77-29260* #	c 26	NASA-CASE-MFS-23405-1					c 35
N77-27400* #	c 37	NASA-CASE-GSC-11063-1			US-PATENT-APPL-SN-718267					NASA-CASE-MFS-23118-1
		US-PATENT-APPL-SN-41431			US-PATENT-CLASS-228-124					US-PATENT-APPL-SN-691256
		US-PATENT-CLASS-318-267			US-PATENT-CLASS-228-263					US-PATENT-CLASS-356-212
		US-PATENT-CLASS-318-468			US-PATENT-4,033,503					US-PATENT-4,040,750
		US-PATENT-CLASS-318-470			NASA-CASE-NPO-13820-1					N77-31497* #
		US-PATENT-CLASS-318-675	N77-30236* #	c 27	US-PATENT-APPL-SN-666992					c 37
		US-PATENT-3,628,113			US-PATENT-CLASS-210-24					NASA-CASE-NPO-13671-1
N77-27677* #	c 51	NASA-CASE-LAR-11649-1			US-PATENT-CLASS-536-105					US-PATENT-APPL-SN-564622
		US-PATENT-APPL-SN-626942			US-PATENT-CLASS-536-85					US-PATENT-CLASS-123-DIG.8
		US-PATENT-CLASS-118-313			US-PATENT-CLASS-536-56					US-PATENT-CLASS-123-119A
		US-PATENT-CLASS-118-6			US-PATENT-CLASS-536-58					US-PATENT-CLASS-123-122AB
		US-PATENT-CLASS-118-9			US-PATENT-CLASS-536-84					US-PATENT-CLASS-123-3
		US-PATENT-CLASS-23-253A			US-PATENT-4,041,233					US-PATENT-CLASS-123-37
		US-PATENT-CLASS-23-259	N77-30237* #	c 27	NASA-CASE-MFS-23345-1					US-PATENT-4,041,910
		US-PATENT-CLASS-23-292			US-PATENT-APPL-SN-696989					N77-31601* #
		US-PATENT-CLASS-424-3			US-PATENT-CLASS-106-292					c 44
		US-PATENT-CLASS-427-4			US-PATENT-CLASS-106-296					NASA-CASE-LEW-12587-1
					US-PATENT-CLASS-106-299					US-PATENT-APPL-SN-717319

N77-32279* #	c 26	NASA-CASE-LEW-12906-1 US-PATENT-APPL-SN-681936 US-PATENT-CLASS-148-32 US-PATENT-CLASS-75-170 US-PATENT-4,045,255	N77-32731* #	c 60	US-PATENT-CLASS-165-166 US-PATENT-CLASS-55-179 US-PATENT-CLASS-55-269 US-PATENT-4,048,529 NASA-CASE-GSC-11839-3 US-PATENT-APPL-SN-468814 US-PATENT-APPL-SN-657997 US-PATENT-CLASS-250-189 US-PATENT-CLASS-340-347AD US-PATENT-CLASS-350-96R US-PATENT-4,045,792	N78-10686* #	c 52	US-PATENT-APPL-SN-680939 US-PATENT-CLASS-126-271 US-PATENT-CLASS-237-1A US-PATENT-CLASS-350-293 US-PATENT-CLASS-350-288 US-PATENT-4,051,834 NASA-CASE-ARC-10916-1 US-PATENT-APPL-SN-701448 US-PATENT-CLASS-3-1.2 US-PATENT-CLASS-3-15 US-PATENT-CLASS-3-29 US-PATENT-4,051,558
N77-32280* #	c 26	NASA-CASE-LEW-12270-1 US-PATENT-APPL-SN-645507 US-PATENT-CLASS-148-32.5 US-PATENT-CLASS-75-170 US-PATENT-4,048,580	N77-32919* #	c 76	NASA-CASE-MFS-23001-1 US-PATENT-APPL-SN-610801 US-PATENT-CLASS-156-DIG.82 US-PATENT-CLASS-156-601 US-PATENT-CLASS-156-619 US-PATENT-CLASS-156-620 US-PATENT-4,046,617	N78-10709* #	c 60	NASA-CASE-GSC-11839-2 US-PATENT-APPL-SN-468614 US-PATENT-APPL-SN-657996 US-PATENT-CLASS-340-173LM US-PATENT-CLASS-350-96R US-PATENT-CLASS-356-169 US-PATENT-4,052,705
N77-32308* #	c 27	NASA-CASE-GSC-12110-1 US-PATENT-APPL-SN-682435 US-PATENT-CLASS-156-645 US-PATENT-CLASS-156-663 US-PATENT-4,046,819	N78-10214* #	c 24	NASA-CASE-LAR-11898-1 US-PATENT-APPL-SN-723264 US-PATENT-CLASS-428-118 US-PATENT-CLASS-428-138 US-PATENT-CLASS-428-73 US-PATENT-CLASS-428-902 US-PATENT-4,052,523	N78-10837* #	c 71	NASA-CASE-NPO-13802-1 US-PATENT-APPL-SN-658133 US-PATENT-CLASS-264-23 US-PATENT-CLASS-264-345 US-PATENT-CLASS-65-DIG.4 US-PATENT-CLASS-65-DIG.7 US-PATENT-CLASS-65-102 US-PATENT-CLASS-65-2 US-PATENT-CLASS-65-32 US-PATENT-CLASS-65-48 US-PATENT-CLASS-65-87 US-PATENT-CLASS-73-505 US-PATENT-4,052,161
N77-32342* #	c 32	NASA-CASE-NPO-13587-1 US-PATENT-APPL-SN-589119 US-PATENT-CLASS-343-10 US-PATENT-CLASS-343-100CL US-PATENT-CLASS-343-5CM US-PATENT-CLASS-343-5DP US-PATENT-4,045,795	N78-10224* #	c 25	NASA-CASE-LEW-12137-1 US-PATENT-APPL-SN-672210 US-PATENT-CLASS-165-105 US-PATENT-CLASS-431-158 US-PATENT-CLASS-431-352 US-PATENT-CLASS-60-39.51R US-PATENT-4,052,144	N78-12390* #	c 35	NASA-CASE-MSC-14773-1 US-PATENT-APPL-SN-612988 US-PATENT-CLASS-137-197 US-PATENT-CLASS-210-222 US-PATENT-CLASS-55-100 US-PATENT-CLASS-55-26-8 US-PATENT-CLASS-55-3 US-PATENT-CLASS-62-60 US-PATENT-CLASS-62-514R US-PATENT-4,027,494
N77-32413* #	c 34	NASA-CASE-GSC-11998-1 US-PATENT-APPL-SN-579989 US-PATENT-CLASS-165-105 US-PATENT-4,048,190	N78-10375* #	c 33	NASA-CASE-MSC-14918-1 US-PATENT-APPL-SN-739914 US-PATENT-CLASS-179-107R US-PATENT-CLASS-179-175.1A US-PATENT-CLASS-330-2 US-PATENT-4,048,930	N78-13320* #	c 33	NASA-CASE-MFS-23274-1 US-PATENT-APPL-SN-714158 US-PATENT-CLASS-307-306 US-PATENT-CLASS-338-32S US-PATENT-CLASS-357-4 US-PATENT-CLASS-357-5 US-PATENT-CLASS-357-73 US-PATENT-4,055,847
N77-32454* #	c 35	NASA-CASE-LEW-12050-1 US-PATENT-APPL-SN-629457 US-PATENT-CLASS-136-202 US-PATENT-CLASS-136-236R US-PATENT-CLASS-136-240 US-PATENT-4,045,247	N78-10376* #	c 33	NASA-CASE-MFS-23280-1 US-PATENT-APPL-SN-708425 US-PATENT-CLASS-318-200 US-PATENT-CLASS-318-227 US-PATENT-CLASS-318-230 US-PATENT-4,052,648	N78-13400* #	c 35	NASA-CASE-ARC-10639-1 US-PATENT-APPL-SN-643043 US-PATENT-CLASS-250-338 US-PATENT-CLASS-250-343 US-PATENT-CLASS-250-351 US-PATENT-4,055,764
N77-32455* #	c 35	NASA-CASE-NPO-13792-1 US-PATENT-APPL-SN-877351 US-PATENT-CLASS-324-57H US-PATENT-CLASS-324-59 US-PATENT-4,045,728	N78-10426* #	c 35	NASA-CASE-MSC-14757-1 US-PATENT-APPL-SN-625734 US-PATENT-CLASS-141-197 US-PATENT-CLASS-141-4 US-PATENT-CLASS-417-225 US-PATENT-CLASS-60-560 US-PATENT-CLASS-60-574 US-PATENT-4,051,877	N78-13436* #	c 37	NASA-CASE-LEW-12083-1 US-PATENT-APPL-SN-659882 US-PATENT-CLASS-250-499 US-PATENT-CLASS-313-61S US-PATENT-CLASS-427-124 US-PATENT-CLASS-427-126 US-PATENT-CLASS-427-248E US-PATENT-CLASS-427-250 US-PATENT-CLASS-427-255 US-PATENT-4,055,686
N77-32456* #	c 35	NASA-CASE-GSC-12143-1 US-PATENT-APPL-SN-743249 US-PATENT-CLASS-250-288 US-PATENT-CLASS-73-421.5R US-PATENT-4,046,012	N78-10429* #	c 35	NASA-CASE-NPO-13772-1 US-PATENT-APPL-SN-675351 US-PATENT-CLASS-250-310 US-PATENT-CLASS-250-388 US-PATENT-4,052,614	N78-13526* #	c 44	NASA-CASE-NPO-13482-1 US-PATENT-APPL-SN-495021 US-PATENT-CLASS-136-89SJ US-PATENT-CLASS-357-15 US-PATENT-CLASS-357-16 US-PATENT-CLASS-357-30 US-PATENT-4,053,918
N77-32478* #	c 36	NASA-CASE-LEW-12164-1 US-PATENT-APPL-SN-511334 US-PATENT-CLASS-350-162SF US-PATENT-4,043,874	N78-10467* #	c 37	NASA-CASE-LEW-12321-1 US-PATENT-APPL-SN-596641 US-PATENT-CLASS-123-122E US-PATENT-CLASS-123-41.33 US-PATENT-CLASS-137-104 US-PATENT-CLASS-415-180 US-PATENT-CLASS-60-39.28R US-PATENT-CLASS-60-39.66 US-PATENT-4,041,697	N78-13874* #	c 74	NASA-CASE-GSC-12088-1 US-PATENT-APPL-SN-648700 US-PATENT-CLASS-356-103 US-PATENT-CLASS-356-104 US-PATENT-4,053,229
N77-32499* #	c 37	NASA-CASE-MSC-18535-1 US-PATENT-APPL-SN-841784 US-PATENT-CLASS-292-110 US-PATENT-4,045,063	N78-10468* #	c 37	NASA-CASE-LEW-12313-1 US-PATENT-APPL-SN-581751 US-PATENT-CLASS-416-135 US-PATENT-CLASS-416-141 US-PATENT-CLASS-416-220R US-PATENT-CLASS-416-248 US-PATENT-4,047,840	N78-14096* #	c 24	NASA-CASE-ARC-11042-1 US-PATENT-APPL-SN-734902 US-PATENT-CLASS-252-6.1 US-PATENT-CLASS-60-838 US-PATENT-4,061,579
N77-32500* #	c 37	NASA-CASE-LEW-12527-1 US-PATENT-APPL-SN-595747 US-PATENT-CLASS-290-52 US-PATENT-CLASS-308-195 US-PATENT-CLASS-308-72 US-PATENT-4,048,434	N78-10529* #	c 43	NASA-CASE-GSC-11876-1 US-PATENT-APPL-SN-877352 US-PATENT-CLASS-324-58.5B US-PATENT-4,052,666	N78-14104* #	c 25	NASA-CASE-ARC-10991-1 US-PATENT-APPL-SN-744574 US-PATENT-CLASS-204-180G US-PATENT-CLASS-204-299R US-PATENT-4,061,561
N77-32501* #	c 37	NASA-CASE-LEW-12477-1 US-PATENT-APPL-SN-595745 US-PATENT-CLASS-290-52 US-PATENT-CLASS-308-195 US-PATENT-4,048,435	N78-10554* #	c 44	NASA-CASE-NPO-13734-1	N78-14164* #	c 27	NASA-CASE-NPO-13687-1 US-PATENT-APPL-SN-692284 US-PATENT-CLASS-260-DIG.15 US-PATENT-CLASS-427-164 US-PATENT-CLASS-428-411 US-PATENT-CLASS-428-522 US-PATENT-CLASS-428-822 US-PATENT-CLASS-96-87A
N77-32580* #	c 44	NASA-CASE-NPO-13675-1 US-PATENT-APPL-SN-658132 US-PATENT-CLASS-204-157.1R US-PATENT-CLASS-250-527 US-PATENT-4,045,315						
N77-32581* #	c 44	NASA-CASE-NPO-13510-1 US-PATENT-APPL-SN-536786 US-PATENT-CLASS-126-263 US-PATENT-CLASS-165-107 US-PATENT-CLASS-165-2 US-PATENT-CLASS-62-4 US-PATENT-4,044,821						
N77-32582* #	c 44	NASA-CASE-NPO-13810-1 US-PATENT-APPL-SN-681096 US-PATENT-CLASS-126-270 US-PATENT-CLASS-126-271 US-PATENT-CLASS-52-117 US-PATENT-CLASS-60-641 US-PATENT-4,044,753						
N77-32583* #	c 44	NASA-CASE-NPO-13736-1 US-PATENT-APPL-SN-681017 US-PATENT-CLASS-350-295 US-PATENT-CLASS-350-320 US-PATENT-CLASS-427-130 US-PATENT-CLASS-427-47 US-PATENT-4,046,462						
N77-32721* #	c 54	NASA-CASE-ARC-10756-1 US-PATENT-APPL-SN-438313 US-PATENT-CLASS-2-2.1A US-PATENT-CLASS-214-1BC US-PATENT-CLASS-214-1CM US-PATENT-4,048,262						
N77-32722* #	c 54	NASA-CASE-MSC-14771-1 US-PATENT-APPL-SN-688854						



N78-14364* #	c 35	US-PATENT-4,061,834 NASA-CASE-ARC-11046-1 US-PATENT-APPL-SN-712419 US-PATENT-CLASS-340-275S US-PATENT-CLASS-73-180 US-PATENT-4,061,029	N78-15879* #	c 74	US-PATENT-4,062,347 NASA-CASE-LAR-10385-3 US-PATENT-APPL-SN-370999 US-PATENT-APPL-SN-38816 US-PATENT-CLASS-350-1 US-PATENT-CLASS-428-334 US-PATENT-CLASS-428-336 US-PATENT-CLASS-428-426 US-PATENT-CLASS-428-428 US-PATENT-4,062,996	N78-17214* #	c 27	US-PATENT-CLASS-260-75NT US-PATENT-CLASS-260-77.5AM US-PATENT-CLASS-260-77.5AN US-PATENT-CLASS-260-77.5AP US-PATENT-CLASS-260-77.5AT US-PATENT-CLASS-260-77.55P US-PATENT-4,069,212
N78-14380* #	c 36	NASA-CASE-MFS-19259-1 US-PATENT-APPL-SN-732630 US-PATENT-CLASS-250-571 US-PATENT-CLASS-356-159 US-PATENT-CLASS-356-160 US-PATENT-CLASS-356-199 US-PATENT-4,061,427	N78-15880* #	c 74	NASA-CASE-MFS-22409-2 US-PATENT-APPL-SN-445398 US-PATENT-APPL-SN-636193 US-PATENT-CLASS-250-272 US-PATENT-CLASS-250-320 US-PATENT-4,063,088	N78-17215* #	c 27	NASA-CASE-NPO-10557 US-PATENT-APPL-SN-759220 US-PATENT-CLASS-260-67 US-PATENT-3,538,053
N78-14452* #	c 43	NASA-CASE-LEW-12217-1 US-PATENT-APPL-SN-783753 US-PATENT-CLASS-166-248 US-PATENT-CLASS-166-259 US-PATENT-4,061,190	N78-16369* #	c 37	NASA-CASE-NPO-13619-1 US-PATENT-APPL-SN-572990 US-PATENT-CLASS-185-38 US-PATENT-CLASS-74-81 US-PATENT-CLASS-74-83 US-PATENT-4,062,245	N78-17237* #	c 31	NASA-CASE-NPO-13764-1 US-PATENT-APPL-SN-674194 US-PATENT-CLASS-128-92C US-PATENT-CLASS-128-92G US-PATENT-CLASS-260-42.17 US-PATENT-CLASS-3-1.9 US-PATENT-4,064,566
N78-14625* #	c 44	NASA-CASE-LEW-12039-1 US-PATENT-APPL-SN-687822 US-PATENT-CLASS-320-15 US-PATENT-CLASS-320-18 US-PATENT-CLASS-320-40 US-PATENT-CLASS-320-6 US-PATENT-4,061,955	N78-16387* #	c 39	NASA-CASE-LAR-11490-1 US-PATENT-APPL-SN-707125 US-PATENT-CLASS-358-106 US-PATENT-4,063,282	N78-17238* #	c 31	NASA-CASE-LEW-11981-1 US-PATENT-APPL-SN-672220 US-PATENT-CLASS-313-22 US-PATENT-CLASS-313-22 US-PATENT-CLASS-313-22A US-PATENT-CLASS-313-22A US-PATENT-4,068,495
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		US-PATENT-CLASS-62-514R	US-PATENT-CLASS-427-388	US-PATENT-CLASS-176-39
N78-25531* #	c 44	US-PATENT-4,077,231	US-PATENT-CLASS-427-388A	US-PATENT-4,085,004
		NASA-CASE-NPO-13909-1	US-PATENT-CLASS-428-313	NASA-CASE-NPO-11954-1
N78-25531* #	c 44	US-PATENT-APPL-SN-744477	US-PATENT-CLASS-428-332	US-PATENT-APPL-SN-229287
		US-PATENT-CLASS-324-57DE	US-PATENT-CLASS-428-921	US-PATENT-CLASS-179-100.2CH
N78-25531* #	c 44	US-PATENT-CLASS-324-57SS	US-PATENT-4,088,806	US-PATENT-CLASS-340-174.1M
		US-PATENT-CLASS-324-58A	NASA-CASE-ARC-11040-2	US-PATENT-CLASS-340-174YC
N78-25531* #	c 44	US-PATENT-4,084,132	US-PATENT-APPL-SN-920878	US-PATENT-CLASS-350-151
		NASA-CASE-MSC-19568-1	NASA-CASE-LEW-10518-3	US-PATENT-3,775,570
N78-25531* #	c 44	US-PATENT-APPL-SN-681000	US-PATENT-APPL-SN-394207	NASA-CASE-MSC-19706-1
		US-PATENT-CLASS-428-913	US-PATENT-CLASS-176-11	US-PATENT-APPL-SN-767911
N78-25531* #	c 44	US-PATENT-CLASS-428-93	US-PATENT-CLASS-176-16	US-PATENT-CLASS-239-265.25
		US-PATENT-CLASS-428-94	US-PATENT-CLASS-250-400	US-PATENT-CLASS-73-147
N78-25531* #	c 44	US-PATENT-CLASS-428-95	US-PATENT-CLASS-250-429	US-PATENT-4,091,665
		US-PATENT-CLASS-428-96	US-PATENT-CLASS-250-492B	NASA-CASE-ARC-11008-1
N78-25531* #	c 44	US-PATENT-CLASS-428-97	US-PATENT-4,088,532	US-PATENT-APPL-SN-708951
		US-PATENT-CLASS-49-DIG.1	NASA-CASE-MFS-23312-1	US-PATENT-CLASS-260-2.5N
N78-25531* #	c 44	US-PATENT-CLASS-49-479	US-PATENT-APPL-SN-699012	US-PATENT-CLASS-260-47CP
		US-PATENT-CLASS-49-485	US-PATENT-CLASS-29-571	US-PATENT-CLASS-260-63N
N78-25531* #	c 44	US-PATENT-4,078,110	US-PATENT-CLASS-29-578	US-PATENT-CLASS-260-78.41
		NASA-CASE-LEW-12718-1	US-PATENT-CLASS-357-91	US-PATENT-4,092,274
N78-25531* #	c 44	US-PATENT-APPL-SN-779428	US-PATENT-4,087,902	NASA-CASE-ARC-11057-1
		US-PATENT-CLASS-137-484.2	NASA-CASE-LEW-11877-1	US-PATENT-APPL-SN-807782
N78-25531* #	c 44	US-PATENT-CLASS-137-501	US-PATENT-APPL-SN-708660	US-PATENT-CLASS-350-165
		US-PATENT-CLASS-137-505.16	US-PATENT-CLASS-431-10	US-PATENT-CLASS-350-175NG
N78-25531* #	c 44	US-PATENT-4,084,612	US-PATENT-CLASS-431-328	US-PATENT-CLASS-427-164
		NASA-CASE-NPO-13948-1	US-PATENT-CLASS-431-7	US-PATENT-CLASS-427-40
N78-25531* #	c 44	US-PATENT-APPL-SN-752748	US-PATENT-CLASS-60-39.65	US-PATENT-CLASS-427-41
		US-PATENT-CLASS-204-195W	US-PATENT-CLASS-60-39.69R	US-PATENT-CLASS-428-411
N78-25531* #	c 44	US-PATENT-CLASS-73-336.5	US-PATENT-4,087,962	US-PATENT-CLASS-428-412
		US-PATENT-4,083,765	NASA-CASE-LAR-11973-1	US-PATENT-CLASS-428-422
N78-25531* #	c 44	NASA-CASE-MSC-12731-1	US-PATENT-APPL-SN-821681	US-PATENT-CLASS-428-447
		US-PATENT-APPL-SN-690818	US-PATENT-CLASS-73-170A	US-PATENT-CLASS-428-515
N78-25531* #	c 44	US-PATENT-CLASS-137-505.25	US-PATENT-CLASS-73-425.4R	US-PATENT-CLASS-428-523
		US-PATENT-CLASS-137-625.3	US-PATENT-CLASS-73-61R	US-PATENT-CLASS-428-538
N78-25531* #	c 44	US-PATENT-CLASS-137-625.38	US-PATENT-4,089,209	US-PATENT-4,091,166
		US-PATENT-4,083,380	NASA-CASE-NPO-13945-1	NASA-CASE-NPO-14103-1
N78-25531* #	c 44	NASA-CASE-LEW-12552-1	US-PATENT-APPL-SN-704180	US-PATENT-APPL-SN-797210
		US-PATENT-APPL-SN-770869	US-PATENT-CLASS-331-94.5G	US-PATENT-CLASS-149-105
N78-25531* #	c 44	US-PATENT-CLASS-136-89CC	US-PATENT-CLASS-331-94.5P	US-PATENT-CLASS-149-111
		US-PATENT-CLASS-29-572	US-PATENT-CLASS-331-94.5PE	US-PATENT-CLASS-149-19.4
N78-25531* #	c 44	US-PATENT-CLASS-357-30	US-PATENT-4,088,965	US-PATENT-CLASS-149-19.8
		US-PATENT-CLASS-357-65	NASA-CASE-MSC-16270-1	US-PATENT-CLASS-149-88
N78-25531* #	c 44	US-PATENT-CLASS-357-67	US-PATENT-APPL-SN-837260	US-PATENT-CLASS-149-92
		US-PATENT-CLASS-427-261	US-PATENT-CLASS-269-21	US-PATENT-CLASS-149-93
N78-25531* #	c 44	US-PATENT-CLASS-427-75	US-PATENT-CLASS-269-266	US-PATENT-4,092,188
		US-PATENT-4,082,569	US-PATENT-4,088,312	NASA-CASE-NPO-14022-1
N78-25531* #	c 44	NASA-CASE-LEW-12185-1	NASA-CASE-LAR-11889-2	US-PATENT-APPL-SN-780728
		US-PATENT-APPL-SN-746269	US-PATENT-APPL-SN-662182	US-PATENT-CLASS-343-781CA
N78-25531* #	c 44	US-PATENT-CLASS-136-89H	US-PATENT-APPL-SN-807703	US-PATENT-CLASS-343-782
		US-PATENT-CLASS-136-89P	US-PATENT-CLASS-308-10	US-PATENT-CLASS-343-837
N78-25531* #	c 44	US-PATENT-CLASS-29-572	US-PATENT-CLASS-73-178R	US-PATENT-4,092,848
		US-PATENT-CLASS-29-628	US-PATENT-4,088,018	NASA-CASE-GSC-11883-2
N78-25531* #	c 44	US-PATENT-4,083,097	NASA-CASE-ARC-10981-1	US-PATENT-APPL-SN-596787
		NASA-CASE-LEW-12541-1	US-PATENT-APPL-SN-738218	US-PATENT-APPL-SN-747675
N78-25531* #	c 44	US-PATENT-APPL-SN-790637	US-PATENT-CLASS-248-178	US-PATENT-CLASS-60-527
		US-PATENT-CLASS-136-89CC	US-PATENT-CLASS-248-186	US-PATENT-CLASS-74-100R
N78-25531* #	c 44	US-PATENT-CLASS-136-89H	US-PATENT-4,088,291	US-PATENT-4,010,455
		US-PATENT-CLASS-136-89P	NASA-CASE-NPO-12148-1	US-PATENT-4,092,874
N78-25531* #	c 44	US-PATENT-CLASS-156-633	US-PATENT-APPL-SN-709415	NASA-CASE-NPO-13581-2
		US-PATENT-CLASS-29-572	US-PATENT-CLASS-136-89P	US-PATENT-APPL-SN-590975
N78-25531* #	c 44	US-PATENT-4,084,985	US-PATENT-4,089,705	US-PATENT-APPL-SN-811815
		NASA-CASE-LEW-12649-1	NASA-CASE-ARC-10917-1	US-PATENT-CLASS-126-271
N78-25531* #	c 44	US-PATENT-APPL-SN-720521	US-PATENT-APPL-SN-672223	US-PATENT-CLASS-237-1A
		US-PATENT-CLASS-427-385B	US-PATENT-CLASS-119-29	US-PATENT-4,091,800
N78-25531* #	c 44	US-PATENT-CLASS-427-385C	US-PATENT-4,088,094	NASA-CASE-NPO-13813-1
		US-PATENT-CLASS-429-254	NASA-CASE-MSC-16433-1	NASA-CASE-NPO-13914-1
N78-25531* #	c 44	US-PATENT-4,085,241	US-PATENT-APPL-SN-910892	US-PATENT-APPL-SN-765139
		NASA-CASE-MFS-23270-1	NASA-CASE-LAR-11889-1	US-PATENT-CLASS-126-270
N78-25531* #	c 44	US-PATENT-APPL-SN-744573	US-PATENT-APPL-SN-740155	US-PATENT-CLASS-126-271
		US-PATENT-CLASS-320-13	US-PATENT-CLASS-356-120	US-PATENT-CLASS-350-299

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			US-PATENT-CLASS-308-DIG.1				US-PATENT-4,103,619				US-PATENT-CLASS-350-288
			US-PATENT-CLASS-308-121				NASA-CASE-LAR-12147-1				US-PATENT-CLASS-350-289
			US-PATENT-CLASS-308-160				US-PATENT-APPL-SN-733825				US-PATENT-4,122,833
			US-PATENT-CLASS-308-163				US-PATENT-CLASS-73-159			N79-11472* # c 44	NASA-CASE-LEW-12552-2
			US-PATENT-CLASS-308-172				US-PATENT-CLASS-73-95				US-PATENT-APPL-SN-844346
			US-PATENT-CLASS-308-5R				US-PATENT-4,103,550				US-PATENT-CLASS-29-572
			US-PATENT-CLASS-308-9				NASA-CASE-MS-C-14939-1				US-PATENT-CLASS-427-123
			US-PATENT-4,099,799				US-PATENT-APPL-SN-785165				US-PATENT-CLASS-427-126
N79-10419* # c 37			NASA-CASE-FRC-10111-1				US-PATENT-CLASS-343-844				US-PATENT-CLASS-427-261
			US-PATENT-APPL-SN-713027				US-PATENT-CLASS-343-854				US-PATENT-CLASS-427-343
			US-PATENT-CLASS-30-90.6				US-PATENT-4,119,972				US-PATENT-CLASS-427-398A
			US-PATENT-CLASS-81-9.5R				NASA-CASE-GSC-12150-1				US-PATENT-CLASS-427-399
			US-PATENT-4,117,749				US-PATENT-APPL-SN-736286				US-PATENT-CLASS-427-75
N79-10420* # c 37			NASA-CASE-NPO-14014-1				US-PATENT-CLASS-325-4				US-PATENT-CLASS-427-84
			US-PATENT-APPL-SN-826204				US-PATENT-CLASS-325-67				US-PATENT-4,122,214
			US-PATENT-CLASS-188-1C				US-PATENT-CLASS-343-17.7			N79-11865* # c 74	NASA-CASE-MFS-23513-1
			US-PATENT-CLASS-256-1				US-PATENT-4,119,964				US-PATENT-APPL-SN-755323
			US-PATENT-CLASS-256-13.1				NASA-CASE-MS-C-16461-1				US-PATENT-CLASS-356-124
			US-PATENT-4,118,014				US-PATENT-APPL-SN-858765				US-PATENT-CLASS-356-210
N79-10421* # c 37			NASA-CASE-MFS-23620-1				US-PATENT-CLASS-307-232				US-PATENT-4,102,580
			US-PATENT-APPL-SN-799023				US-PATENT-CLASS-328-133			N79-11920* # c 76	NASA-CASE-NPO-13918-1
			US-PATENT-CLASS-219-124.2-2				US-PATENT-CLASS-331-1A				US-PATENT-APPL-SN-706073
			US-PATENT-CLASS-219-124.32				US-PATENT-CLASS-331-14				US-PATENT-CLASS-156-DIG.65
			US-PATENT-CLASS-219-125.1				US-PATENT-CLASS-331-23				US-PATENT-CLASS-156-DIG.65
			US-PATENT-CLASS-228-8				US-PATENT-CLASS-331-27				US-PATENT-CLASS-156-DIG.88
			US-PATENT-4,118,620				US-PATENT-4,119,926				US-PATENT-CLASS-156-608
N79-10422* # c 37			NASA-CASE-MFS-23051-1				NASA-CASE-NPO-13064-1				US-PATENT-CLASS-156-617SP
			US-PATENT-APPL-SN-632111				US-PATENT-APPL-SN-297436				US-PATENT-4,121,965
			US-PATENT-CLASS-15-230.16				US-PATENT-CLASS-357-22			N79-12061* # c 05	NASA-CASE-FRC-10092-1
			US-PATENT-CLASS-15-230.17				US-PATENT-3,860,946				US-PATENT-APPL-SN-831634
			US-PATENT-CLASS-29-125				NASA-CASE-KSC-11031-1				US-PATENT-CLASS-244-48
			US-PATENT-CLASS-428-133				US-PATENT-APPL-SN-782482				US-PATENT-CLASS-244-82
			US-PATENT-CLASS-74-572				US-PATENT-CLASS-324-102				US-PATENT-CLASS-244-90R
			US-PATENT-4,098,142				US-PATENT-CLASS-324-113				US-PATENT-4,124,180
N79-10513* # c 44			NASA-CASE-NPO-13732-1				US-PATENT-CLASS-324-133			N79-12221* # c 27	NASA-CASE-MS-C-12619-2
			US-PATENT-APPL-SN-765138				US-PATENT-4,105,966				US-PATENT-APPL-SN-555750
			US-PATENT-CLASS-429-13				NASA-CASE-MS-C-16043-1				US-PATENT-APPL-SN-786913
			US-PATENT-CLASS-429-41				US-PATENT-APPL-SN-750792				US-PATENT-CLASS-244-121
			US-PATENT-CLASS-429-42				US-PATENT-CLASS-137-614.06				US-PATENT-CLASS-244-158
			US-PATENT-4,100,331				US-PATENT-CLASS-137-637.05				US-PATENT-CLASS-244-160
N79-10693* # c 51			NASA-CASE-MS-C-16098-1				US-PATENT-CLASS-251-149.9				US-PATENT-CLASS-428-189
			US-PATENT-APPL-SN-792068				US-PATENT-CLASS-285-326				US-PATENT-CLASS-428-212
			US-PATENT-CLASS-210-23F				US-PATENT-CLASS-285-359				US-PATENT-CLASS-428-280
			US-PATENT-CLASS-210-433M				US-PATENT-4,103,712				US-PATENT-CLASS-428-285
			US-PATENT-CLASS-210-96M				NASA-CASE-LEW-12793-1				US-PATENT-CLASS-428-286
			US-PATENT-4,118,315				US-PATENT-APPL-SN-745766				US-PATENT-CLASS-428-332
N79-10694* # c 51			NASA-CASE-GSC-12173-1				US-PATENT-CLASS-60-39.08				US-PATENT-CLASS-428-447
			US-PATENT-APPL-SN-806440				US-PATENT-CLASS-60-39.28R				US-PATENT-CLASS-428-450
			US-PATENT-CLASS-165-2				US-PATENT-CLASS-60-39.66				US-PATENT-CLASS-428-77
			US-PATENT-CLASS-165-30				US-PATENT-4,104,873				US-PATENT-CLASS-428-920
			US-PATENT-CLASS-195-1.8				NASA-CASE-MFS-23447-1				US-PATENT-4,124,732
			US-PATENT-CLASS-219-299				US-PATENT-APPL-SN-736909			N79-12321* # c 33	NASA-CASE-GSC-12190-1
			US-PATENT-CLASS-219-302				US-PATENT-CLASS-308-194				US-PATENT-APPL-SN-817413
			US-PATENT-CLASS-62-514R				US-PATENT-CLASS-308-72				US-PATENT-CLASS-357-22
			US-PATENT-CLASS-62-78				US-PATENT-4,105,261				US-PATENT-CLASS-357-23
			US-PATENT-4,117,881				NASA-CASE-NPO-13828-1				US-PATENT-CLASS-357-41
N79-10724* # c 52			NASA-CASE-ARC-10985-1				US-PATENT-APPL-SN-672636				US-PATENT-CLASS-357-45
			US-PATENT-APPL-SN-769148				US-PATENT-CLASS-123-148DC				US-PATENT-CLASS-357-55
			US-PATENT-CLASS-128-2.05R				US-PATENT-CLASS-123-148E				US-PATENT-4,119,996
			US-PATENT-CLASS-358-111				US-PATENT-CLASS-315-209CD			N79-12331* # c 33	NASA-CASE-MS-C-12662-1
			US-PATENT-CLASS-358-96				US-PATENT-CLASS-315-209SC				US-PATENT-APPL-SN-540779
			US-PATENT-CLASS-384-417				US-PATENT-CLASS-315-241R				US-PATENT-CLASS-428-109
			US-PATENT-4,101,961				US-PATENT-4,122,816				US-PATENT-CLASS-428-247
N79-10969* # c 89			NASA-CASE-MFS-23675-1				NASA-CASE-LEW-12819-1				US-PATENT-CLASS-428-258
			US-PATENT-APPL-SN-820498				US-PATENT-APPL-SN-803823				US-PATENT-CLASS-428-259
			US-PATENT-CLASS-350-294				US-PATENT-CLASS-136-89CC				US-PATENT-4,107,363
			US-PATENT-CLASS-350-55				US-PATENT-CLASS-357-15			N79-12359* # c 34	NASA-CASE-LAR-11729-1
			US-PATENT-4,101,195				US-PATENT-CLASS-357-16				US-PATENT-APPL-SN-856461
N79-11108* # c 18			NASA-CASE-MFS-23579-1				US-PATENT-CLASS-357-30				US-PATENT-CLASS-73-189
			US-PATENT-APPL-SN-829316				US-PATENT-CLASS-357-65				US-PATENT-CLASS-73-194VS
			US-PATENT-CLASS-228-13				US-PATENT-CLASS-357-67				US-PATENT-4,122,712
			US-PATENT-CLASS-228-15.1				US-PATENT-4,104,084			N79-12541* # c 44	NASA-CASE-NPO-14100-1
			US-PATENT-CLASS-228-173				NASA-CASE-LEW-12775-1				US-PATENT-APPL-SN-861391
			US-PATENT-CLASS-244-159				US-PATENT-APPL-SN-799026				US-PATENT-CLASS-324-20R
			US-PATENT-4,122,891				US-PATENT-CLASS-136-89				US-PATENT-CLASS-324-22
N79-11151* # c 25			NASA-CASE-NPO-13958-1				US-PATENT-CLASS-148-188				US-PATENT-4,122,383
			US-PATENT-APPL-SN-745384				US-PATENT-CLASS-29-572			N79-12564* # c 45	NASA-CASE-MS-C-16258-1
			US-PATENT-CLASS-126-91A				US-PATENT-CLASS-427-75				US-PATENT-APPL-SN-853705
			US-PATENT-CLASS-431-10				US-PATENT-4,104,091				US-PATENT-CLASS-210-50
			US-PATENT-CLASS-431-208				NASA-CASE-MFS-23518-1				US-PATENT-CLASS-210-60
			US-PATENT-CLASS-432-223				US-PATENT-APPL-SN-829390				US-PATENT-CLASS-210-63R
			US-PATENT-CLASS-432-29				US-PATENT-CLASS-204-32				US-PATENT-CLASS-423-242
			US-PATENT-4,104,018				US-PATENT-CLASS-204-33				US-PATENT-CLASS-55-73
N79-11152* # c 25			NASA-CASE-NPO-13904-1				US-PATENT-CLASS-204-37R				US-PATENT-4,123,355
			US-PATENT-APPL-SN-730468				US-PATENT-CLASS-204-38B			N79-12694* # c 52	NASA-CASE-NPO-13913-1
			US-PATENT-CLASS-208-10				US-PATENT-4,104,134				US-PATENT-APPL-SN-687251
			US-PATENT-CLASS-208-8				NASA-CASE-NPO-14126-1				US-PATENT-CLASS-128-2R
			US-PATENT-CLASS-302-66				US-PATENT-APPL-SN-838336				US-PATENT-CLASS-364-120
			US-PATENT-CLASS-44-51				US-PATENT-CLASS-204-157.1R				US-PATENT-CLASS-364-300
			US-PATENT-4,121,995				US-PATENT-CLASS-250-527				US-PATENT-CLASS-364-415
N79-11215* # c 27			NASA-CASE-ARC-11170-1				US-PATENT-4,105,517				US-PATENT-CLASS-364-900
			US-PATENT-APPL-SN-956161				NASA-CASE-NPO-13817-1				US-PATENT-4,122,518
N79-11231* # c 28			NASA-CASE-NPO-13858-1				US-PATENT-APPL-SN-801452			N79-12890* # c 74	NASA-CASE-KSC-11010-1
			NASA-CASE-NPO-13859-1				US-PATENT-CLASS-126-270				US-PATENT-APPL-SN-753977
			US-PATENT-APPL-SN-740153				US-PATENT-CLASS-126-271				US-PATENT-CLASS-200-46
			US-PATENT-CLASS-102-28R								US-PATENT-CLASS-200-61

		US-PATENT-CLASS-250-214AL				US-PATENT-CLASS-303-92
		US-PATENT-CLASS-250-214R				US-PATENT-CLASS-415-9
		US-PATENT-CLASS-315-153				US-PATENT-CLASS-418-2
		US-PATENT-4,122,334				US-PATENT-CLASS-74-572
N79-13214* #	c 32	NASA-CASE-NPO-14009-1				US-PATENT-4,132,130
		US-PATENT-APPL-SN-818917				NASA-CASE-LEW-12238-2
		US-PATENT-CLASS-343-117R	N79-14228* #	c 28	NASA-CASE-NPO-10866-1	US-PATENT-APPL-SN-760771
		US-PATENT-CLASS-343-118			US-PATENT-APPL-SN-849274	US-PATENT-APPL-SN-899123
		US-PATENT-CLASS-343-7.4			US-PATENT-CLASS-149-19.9	US-PATENT-CLASS-136-89SJ
		US-PATENT-4,122,454			US-PATENT-CLASS-149-19.92	US-PATENT-CLASS-357-30
N79-13288* #	c 34	NASA-CASE-LEW-12252-1			US-PATENT-CLASS-149-20	US-PATENT-4,131,486
		US-PATENT-APPL-SN-559847			US-PATENT-4,111,729	NASA-CASE-NPO-13579-4
		US-PATENT-CLASS-165-169	N79-14267* #	c 32	NASA-CASE-NPO-13982-1	US-PATENT-APPL-SN-906297
		US-PATENT-CLASS-239-127.1			US-PATENT-APPL-SN-782464	US-PATENT-CLASS-126-271
		US-PATENT-CLASS-60-267			US-PATENT-CLASS-329-122	US-PATENT-CLASS-350-292
		US-PATENT-4,107,919			US-PATENT-CLASS-343-14	US-PATENT-CLASS-350-293
N79-13289* #	c 34	NASA-CASE-LEW-12441-1			US-PATENT-CLASS-364-458	US-PATENT-CLASS-350-320
		US-PATENT-APPL-SN-559846			US-PATENT-CLASS-364-604	US-PATENT-4,131,336
		US-PATENT-CLASS-165-148			US-PATENT-CLASS-364-728	N79-14749* #
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		US-PATENT-CLASS-148-2			US-PATENT-CLASS-204-195B	N79-25143* #
		US-PATENT-4,148,409			US-PATENT-4,149,938	c 24
N79-22300* #	c 27	NASA-CASE-ARC-11060-1	N79-24203* #	c 32	NASA-CASE-LAR-12375-1	NASA-CASE-GSC-11577-3
		US-PATENT-APPL-SN-843090			US-PATENT-APPL-SN-900842	US-PATENT-APPL-SN-322897
		US-PATENT-CLASS-260-307G			US-PATENT-CLASS-73-647	US-PATENT-APPL-SN-506803
		US-PATENT-CLASS-528-401			US-PATENT-CLASS-73-724	US-PATENT-APPL-SN-845502
		US-PATENT-CLASS-528-422			US-PATENT-4,149,423	US-PATENT-CLASS-156-89
		US-PATENT-4,145,524	N79-24210* #	c 32	NASA-CASE-NPO-13641-1	US-PATENT-CLASS-220-2.2
N79-22373* #	c 33	NASA-CASE-KSC-11008-1			US-PATENT-APPL-SN-777883	US-PATENT-CLASS-65-43
		US-PATENT-APPL-SN-780729			US-PATENT-CLASS-343-100TD	US-PATENT-3,859,714
		US-PATENT-CLASS-324-123C			US-PATENT-4,148,031	US-PATENT-4,155,475
		US-PATENT-CLASS-324-99D	N79-24254* #	c 33	NASA-CASE-NPO-14000-1	N79-25314* #
		US-PATENT-CLASS-330-2			US-PATENT-APPL-SN-876431	c 33
		US-PATENT-CLASS-330-51			US-PATENT-CLASS-307-82	NASA-CASE-NPO-14410-1
		US-PATENT-CLASS-330-86			US-PATENT-CLASS-363-56	US-PATENT-APPL-SN-044429
		US-PATENT-4,109,213			US-PATENT-CLASS-363-71	NASA-CASE-MFS-23720-3
N79-22474* #	c 37	NASA-CASE-MFS-23846-1			US-PATENT-CLASS-363-87	US-PATENT-APPL-SN-848420
		US-PATENT-APPL-SN-891372			US-PATENT-4,150,425	US-PATENT-CLASS-73-12
		US-PATENT-CLASS-138-96R	N79-24257* #	c 33	NASA-CASE-NPO-14056-1	US-PATENT-CLASS-73-82
		US-PATENT-CLASS-220-266			US-PATENT-APPL-SN-833637	US-PATENT-4,154,084
		US-PATENT-CLASS-239-265.15			US-PATENT-CLASS-363-134	N79-25481* #
		US-PATENT-CLASS-239-288			US-PATENT-CLASS-363-71	c 44
		US-PATENT-CLASS-277-192			US-PATENT-CLASS-363-95	NASA-CASE-LEW-12972-1
		US-PATENT-4,148,180			US-PATENT-4,149,233	US-PATENT-APPL-SN-897829
N79-22475* #	c 37	NASA-CASE-LEW-11873-1	N79-24285* #	c 34	NASA-CASE-MSC-16841-1	US-PATENT-CLASS-429-253
		US-PATENT-APPL-SN-814006			US-PATENT-APPL-SN-893382	US-PATENT-CLASS-526-7
		US-PATENT-CLASS-277-62			US-PATENT-CLASS-210-108	US-PATENT-CLASS-526-9
		US-PATENT-CLASS-277-96.1			US-PATENT-CLASS-210-142	US-PATENT-4,154,912
		US-PATENT-4,145,058			US-PATENT-CLASS-73-714	N79-25482* #
N79-22537* #	c 39	NASA-CASE-LAR-12027-1			US-PATENT-4,151,086	c 44
		US-PATENT-APPL-SN-889670	N79-24431* #	c 44	NASA-CASE-NPO-13652-2	NASA-CASE-NPO-14200-1
		US-PATENT-CLASS-73-770			US-PATENT-APPL-SN-848794	US-PATENT-APPL-SN-891243
		US-PATENT-CLASS-73-810			US-PATENT-CLASS-228-5.1	US-PATENT-CLASS-138-89CA
		US-PATENT-4,145,933			US-PATENT-CLASS-228-6	US-PATENT-CLASS-138-89CC
N79-22679* #	c 46	NASA-CASE-NPO-14112-1			US-PATENT-CLASS-29-57.4	US-PATENT-CLASS-138-89PC
		US-PATENT-APPL-SN-826326			US-PATENT-CLASS-29-572	US-PATENT-CLASS-138-89SJ
		US-PATENT-CLASS-102-21.6			US-PATENT-CLASS-29-739	US-PATENT-4,153,476
		US-PATENT-CLASS-166-63			US-PATENT-CLASS-29-809	N79-26075* #
		US-PATENT-CLASS-175-1			US-PATENT-4,149,685	c 12
		US-PATENT-CLASS-181-106	N79-24432* #	c 44	NASA-CASE-NPO-13579-3	NASA-CASE-MFS-23480-1
		US-PATENT-CLASS-181-117			US-PATENT-APPL-SN-762363	US-PATENT-APPL-SN-746578
		US-PATENT-4,148,375			US-PATENT-CLASS-126-270	US-PATENT-CLASS-13-20
N79-23097* #	c 08	NASA-CASE-LAR-12215-1			US-PATENT-CLASS-264-1	US-PATENT-CLASS-13-22
		US-PATENT-APPL-SN-858782			US-PATENT-CLASS-264-33	US-PATENT-CLASS-13-24
		US-PATENT-CLASS-244-17.13			US-PATENT-CLASS-264-34	US-PATENT-CLASS-219-410
		US-PATENT-CLASS-244-185			US-PATENT-CLASS-264-35	US-PATENT-4,158,742
		US-PATENT-CLASS-244-83G			US-PATENT-CLASS-264-510	N79-26100* #
		US-PATENT-CLASS-318-585			US-PATENT-CLASS-264-518	c 15
		US-PATENT-CLASS-318-818			US-PATENT-CLASS-264-70	NASA-CASE-ARC-11104-1
		US-PATENT-CLASS-384-434			US-PATENT-CLASS-264-71	US-PATENT-APPL-SN-854920
		US-PATENT-4,148,452			US-PATENT-CLASS-350-292	US-PATENT-CLASS-244-121
N79-23142* #	c 24	NASA-CASE-MSC-16386-1			US-PATENT-CLASS-350-294	US-PATENT-CLASS-260-37EP
		US-PATENT-APPL-SN-034529			US-PATENT-CLASS-350-296	US-PATENT-CLASS-260-830S
N79-23310* #	c 32	NASA-CASE-KSC-11023-1			US-PATENT-CLASS-405-229	US-PATENT-CLASS-264-102
		US-PATENT-APPL-SN-918533			US-PATENT-CLASS-405-263	US-PATENT-CLASS-264-145
		US-PATENT-CLASS-179-1MN			US-PATENT-4,149,817	US-PATENT-CLASS-264-161
		US-PATENT-CLASS-179-27CA	N79-24433* #	c 44	NASA-CASE-NPO-13579-2	US-PATENT-CLASS-264-175
		US-PATENT-CLASS-179-84VF			US-PATENT-APPL-SN-762362	US-PATENT-CLASS-264-238
		US-PATENT-4,153,818			US-PATENT-CLASS-126-271	US-PATENT-CLASS-428-220
N79-23345* #	c 33	NASA-CASE-FRC-10116-1			US-PATENT-CLASS-126-400	US-PATENT-CLASS-428-413
		US-PATENT-APPL-SN-885049			US-PATENT-CLASS-237-1A	US-PATENT-CLASS-428-414
		US-PATENT-CLASS-323-22T			US-PATENT-CLASS-350-288	US-PATENT-CLASS-428-418
		US-PATENT-4,151,456			US-PATENT-CLASS-350-299	US-PATENT-CLASS-428-421
N79-23431* #	c 37	NASA-CASE-NPO-14597-1			US-PATENT-4,149,521	US-PATENT-CLASS-428-820
		US-PATENT-APPL-SN-037194			NASA-CASE-ARC-11058-2	US-PATENT-4,156,752
N79-23481* #	c 44	NASA-CASE-MFS-23349-1	N79-24651* #	c 54	US-PATENT-APPL-SN-753965	N79-26372* #
		US-PATENT-APPL-SN-823061			US-PATENT-APPL-SN-883094	c 35
		US-PATENT-CLASS-126-270			US-PATENT-CLASS-2-2.1A	NASA-CASE-LAR-11889-1
		US-PATENT-CLASS-126-271			US-PATENT-CLASS-285-235	US-PATENT-APPL-SN-662182
		US-PATENT-4,148,295			US-PATENT-4,091,464	US-PATENT-CLASS-308-10
N79-23555* #	c 48	NASA-CASE-NPO-14255-1			US-PATENT-4,151,612	US-PATENT-CLASS-73-178R
		US-PATENT-APPL-SN-830458	N79-24652* #	c 54	NASA-CASE-NPO-13906-1	US-PATENT-4,156,548
		US-PATENT-CLASS-181-115			US-PATENT-APPL-SN-837259	N79-26439* #
		US-PATENT-CLASS-181-120			US-PATENT-CLASS-3-1.1	c 43
		US-PATENT-CLASS-340-12R			US-PATENT-CLASS-3-12.5	NASA-CASE-MFS-23726-1
		US-PATENT-4,153,134			US-PATENT-CLASS-414-6	US-PATENT-APPL-SN-848418
N79-23753* #	c 71	NASA-CASE-NPO-14134-1			US-PATENT-4,149,278	US-PATENT-CLASS-105-161
		US-PATENT-APPL-SN-861392			NASA-CASE-LEW-11890-1	US-PATENT-CLASS-299-1
		US-PATENT-CLASS-179-1DM	N79-24976* #	c 05	US-PATENT-APPL-SN-891244	US-PATENT-CLASS-33-1N
		US-PATENT-CLASS-179-1MF			US-PATENT-CLASS-137-15.1	US-PATENT-CLASS-33-1Q
		US-PATENT-CLASS-181-148			US-PATENT-CLASS-244-53B	US-PATENT-CLASS-33-17AL
		US-PATENT-CLASS-340-8LF			US-PATENT-4,154,256	US-PATENT-CLASS-384-560
		US-PATENT-4,149,034			NASA-CASE-ARC-10994-2	US-PATENT-4,156,971
N79-23798* #	c 76	NASA-CASE-NPO-13969-1	N79-25142* #	c 24	NASA-CASE-MSC-12737-1	N79-26474* #
		US-PATENT-APPL-SN-820499			US-PATENT-APPL-SN-788045	c 44
		US-PATENT-CLASS-156-DIG.6-8			US-PATENT-CLASS-102-105	NASA-CASE-LEW-13150-1
		US-PATENT-CLASS-156-617SP			US-PATENT-CLASS-244-121	US-PATENT-APPL-SN-914260
		US-PATENT-CLASS-423-345			US-PATENT-CLASS-244-163	US-PATENT-CLASS-429-101
		US-PATENT-4,152,194			US-PATENT-CLASS-427-350	US-PATENT-CLASS-429-15
N79-24062* #	c 24	NASA-CASE-ARC-11189-1			US-PATENT-CLASS-427-372A	US-PATENT-4,159,366
		US-PATENT-APPL-SN-940688			US-PATENT-CLASS-428-137	N79-26475* #
		US-PATENT-CLASS-426-366			US-PATENT-CLASS-428-282	c 44
		US-PATENT-4,148,962			US-PATENT-CLASS-428-290	NASA-CASE-MFS-23540-1
					US-PATENT-CLASS-428-332	US-PATENT-APPL-SN-863773
						US-PATENT-CLASS-29-572
						US-PATENT-CLASS-29-577
						US-PATENT-CLASS-29-578
						US-PATENT-CLASS-29-580
						US-PATENT-CLASS-357-45
						US-PATENT-4,156,309
						N79-26771* #
						c 52
						NASA-CASE-ARC-10994-2
						US-PATENT-APPL-SN-759965
						US-PATENT-CLASS-128-660
						US-PATENT-CLASS-73-626
						US-PATENT-4,154,230
						N79-26772* #
						c 52
						NASA-CASE-KSC-11069-1
						US-PATENT-APPL-SN-878438
						US-PATENT-CLASS-3-1.9
						US-PATENT-CLASS-3-12
						US-PATENT-CLASS-3-2
						US-PATENT-4,158,895
						N79-27836* #
						c 52
						NASA-CASE-NPO-13910-1

		US-PATENT-APPL-SN-712270		US-PATENT-CLASS-244-1R		N80-10494* #	c 37	NASA-CASE-NPO-14384-1
		US-PATENT-CLASS-128-329R		US-PATENT-CLASS-244-183				US-PATENT-APPL-SN-880728
		US-PATENT-CLASS-128-639		US-PATENT-4,162,701				US-PATENT-CLASS-210-188
		US-PATENT-4,154,228	N79-31706* #	c 43	NASA-CASE-MFS-23725-1			US-PATENT-CLASS-210-340
N79-28253* #	c 25	NASA-CASE-NPO-13850-1		US-PATENT-APPL-SN-848783				US-PATENT-CLASS-239-102
		US-PATENT-APPL-SN-704468		US-PATENT-CLASS-250-253				US-PATENT-CLASS-239-302
		US-PATENT-CLASS-118-49		US-PATENT-CLASS-250-272				US-PATENT-CLASS-422-187
		US-PATENT-CLASS-23-252R		US-PATENT-4,165,460				US-PATENT-CLASS-422-199
		US-PATENT-CLASS-248	N79-31752* #	c 44	NASA-CASE-NPO-14205-1			US-PATENT-CLASS-422-208
		US-PATENT-CLASS-253		US-PATENT-APPL-SN-920879				US-PATENT-CLASS-422-235
		US-PATENT-CLASS-337		US-PATENT-CLASS-108-1				US-PATENT-CLASS-422-242
		US-PATENT-CLASS-349		US-PATENT-CLASS-108-1.2				US-PATENT-CLASS-423-350
		US-PATENT-CLASS-423-33-5		US-PATENT-CLASS-136-89CC		N80-10507* #	c 39	NASA-CASE-NPO-14192-1
		US-PATENT-CLASS-427-95		US-PATENT-CLASS-252-514				US-PATENT-APPL-SN-830562
		US-PATENT-4,033,286		US-PATENT-CLASS-29-572				US-PATENT-CLASS-181-102
N79-28307* #	c 27	NASA-CASE-LEW-12053-2		US-PATENT-CLASS-357-30				US-PATENT-CLASS-181-105
		US-PATENT-APPL-SN-796263		US-PATENT-CLASS-357-65				US-PATENT-CLASS-367-26
		US-PATENT-CLASS-260-37N		US-PATENT-CLASS-357-67				US-PATENT-CLASS-467-28
		US-PATENT-CLASS-260-42		US-PATENT-CLASS-427-88				US-PATENT-4,168,483
		US-PATENT-CLASS-260-53		US-PATENT-4,163,678	N80-10709* #	c 46	NASA-CASE-NPO-14231-1	
		US-PATENT-CLASS-528-126	N79-31753* #	c 44	NASA-CASE-NPO-14467-1			US-PATENT-APPL-SN-903019
		US-PATENT-CLASS-528-127		US-PATENT-APPL-SN-946994				US-PATENT-CLASS-175-78
		US-PATENT-CLASS-528-128		US-PATENT-CLASS-136-89PC				US-PATENT-CLASS-73-155
		US-PATENT-CLASS-528-221		US-PATENT-4,162,928				US-PATENT-4,167,111
		US-PATENT-CLASS-528-223	N79-33316* #	c 27	NASA-CASE-LAR-12054-1	N80-10799* #	c 54	NASA-CASE-MSC-16182-1
		US-PATENT-CLASS-528-225		US-PATENT-APPL-SN-839963				US-PATENT-APPL-SN-780938
		US-PATENT-CLASS-528-227		US-PATENT-CLASS-264-137				US-PATENT-CLASS-128-142R
		US-PATENT-CLASS-528-229		US-PATENT-CLASS-428-474				US-PATENT-CLASS-128-191R
		US-PATENT-CLASS-528-331		US-PATENT-CLASS-528-229				US-PATENT-CLASS-128-212
		US-PATENT-CLASS-528-336		US-PATENT-4,166,170				US-PATENT-4,168,706
		US-PATENT-CLASS-528-337	N79-33392* #	c 33	NASA-CASE-XMF-04494-1	N80-14107* #	c 05	NASA-CASE-ARC-11106-1
		US-PATENT-CLASS-528-338		US-PATENT-APPL-SN-547643				US-PATENT-APPL-SN-831633
		US-PATENT-CLASS-528-342		US-PATENT-CLASS-200-83				US-PATENT-CLASS-415-199
		US-PATENT-CLASS-544-193		US-PATENT-3,378,657				US-PATENT-CLASS-416-228
		US-PATENT-4,159,262	N79-33393* #	c 33	NASA-CASE-XMS-01244-1			US-PATENT-CLASS-416-238
N79-28342* #	c 28	NASA-CASE-NPO-14260-1		US-PATENT-APPL-SN-20370				US-PATENT-4,168,939
		US-PATENT-APPL-SN-861390		US-PATENT-CLASS-200-114		N80-14183* #	c 18	NASA-CASE-GSC-12331-1
		US-PATENT-CLASS-149-19.4		US-PATENT-3,123,692				US-PATENT-APPL-SN-843088
		US-PATENT-CLASS-149-19.9		US-PATENT-4,166,170				US-PATENT-CLASS-343-880
		US-PATENT-CLASS-149-20	N79-33449* #	c 35	NASA-CASE-XGS-01245-1			US-PATENT-CLASS-343-883
		US-PATENT-4,156,583		US-PATENT-APPL-SN-134619				US-PATENT-4,176,360
N79-28370* #	c 31	NASA-CASE-MFS-23721-1		US-PATENT-CLASS-338-18		N80-14188* #	c 20	NASA-CASE-XLE-02062-1
		US-PATENT-APPL-SN-847277		US-PATENT-3,119,086				US-PATENT-APPL-SN-545783
		US-PATENT-CLASS-343-14	N79-33450* #	c 35	NASA-CASE-XGS-01293-1			US-PATENT-CLASS-60-203
		US-PATENT-CLASS-343-5NA		US-PATENT-APPL-SN-150690				US-PATENT-CLASS-60-259
		US-PATENT-4,161,731		US-PATENT-CLASS-73-400				US-PATENT-4,171,615
N79-28415* #	c 33	NASA-CASE-MSC-16697-1		US-PATENT-3,190,124		N80-14229* #	c 26	NASA-CASE-NPO-14474-1
		US-PATENT-APPL-SN-885067	N79-33467* #	c 37	NASA-CASE-XMS-01077-1			US-PATENT-APPL-SN-918537
		US-PATENT-CLASS-307-119		US-PATENT-APPL-SN-228049				US-PATENT-CLASS-423-149
		US-PATENT-CLASS-307-98		US-PATENT-CLASS-312-319				US-PATENT-CLASS-423-293
		US-PATENT-CLASS-361-170		US-PATENT-3,123,418				US-PATENT-CLASS-423-348
		US-PATENT-4,161,661	N79-33468* #	c 37	NASA-CASE-HQN-00573-1			US-PATENT-CLASS-423-417
N79-28416* #	c 33	NASA-CASE-GSC-12171-1		US-PATENT-APPL-SN-129379				US-PATENT-CLASS-423-625
		US-PATENT-APPL-SN-878542		US-PATENT-CLASS-137-14				US-PATENT-4,172,883
		US-PATENT-CLASS-343-909		US-PATENT-3,134,389		N80-14281* #	c 32	NASA-CASE-NPO-13830-1
		US-PATENT-4,160,254		US-PATENT-4,166,959				US-PATENT-APPL-SN-703905
N79-28527* #	c 35	NASA-CASE-NPO-13953-1	N79-33469* #	c 37	NASA-CASE-XGS-01286-1			US-PATENT-APPL-SN-834257
		US-PATENT-APPL-SN-880727		US-PATENT-APPL-SN-142583				US-PATENT-CLASS-333-81R
		US-PATENT-CLASS-356-237		US-PATENT-CLASS-251-172				US-PATENT-CLASS-343-18A
		US-PATENT-CLASS-356-404		US-PATENT-3,233,862				US-PATENT-CLASS-343-909
		US-PATENT-4,160,601	N79-34011* #	c 74	NASA-CASE-NPO-14066-1			US-PATENT-4,184,718
N79-28549* #	c 37	NASA-CASE-GSC-12297-1		US-PATENT-APPL-SN-827464		N80-14330* #	c 33	NASA-CASE-NPO-10857-1
		US-PATENT-APPL-SN-880838		US-PATENT-CLASS-250-216				US-PATENT-APPL-SN-888362
		US-PATENT-CLASS-165-105		US-PATENT-CLASS-250-551				US-PATENT-CLASS-315-145
		US-PATENT-CLASS-357-74		US-PATENT-4,166,959				US-PATENT-CLASS-315-280
		US-PATENT-CLASS-357-79	N80-10278* #	c 20	NASA-CASE-MFS-23642-1			US-PATENT-CLASS-315-334
		US-PATENT-CLASS-357-81		US-PATENT-APPL-SN-923758				US-PATENT-3,635,537
		US-PATENT-CLASS-357-82		US-PATENT-CLASS-137-177		N80-14332* #	c 33	NASA-CASE-NPO-14350-1
		US-PATENT-CLASS-357-83		US-PATENT-CLASS-137-209				US-PATENT-APPL-SN-921627
		US-PATENT-4,161,747		US-PATENT-CLASS-137-574				US-PATENT-CLASS-250-310
N79-28550* #	c 37	NASA-CASE-GSC-12274-1		US-PATENT-CLASS-137-578				US-PATENT-CLASS-250-492A
		US-PATENT-APPL-SN-909100		US-PATENT-CLASS-137-590				US-PATENT-CLASS-324-158T
		US-PATENT-CLASS-251-7		US-PATENT-CLASS-244-135R				US-PATENT-4,172,228
		US-PATENT-CLASS-72-436		US-PATENT-4,168,718		N80-14371* #	c 35	NASA-CASE-LAR-11690-1
		US-PATENT-CLASS-72-451		US-PATENT-CLASS-137-177				US-PATENT-APPL-SN-928129
		US-PATENT-CLASS-72-470		US-PATENT-CLASS-137-209				US-PATENT-CLASS-73-655
		US-PATENT-4,159,634		US-PATENT-CLASS-137-574				US-PATENT-CLASS-73-661
N79-28551* #	c 37	NASA-CASE-ARC-11052-1		US-PATENT-CLASS-137-578				US-PATENT-4,171,645
		US-PATENT-APPL-SN-826202		US-PATENT-CLASS-137-590		N80-14384* #	c 36	NASA-CASE-GSC-12237-1
		US-PATENT-CLASS-414-4		US-PATENT-CLASS-244-135R				US-PATENT-APPL-SN-837795
		US-PATENT-4,160,508		US-PATENT-4,168,718				US-PATENT-CLASS-331-94.5C
N79-31228* #	c 09	NASA-CASE-LAR-12149-2	N80-10374* #	c 28	NASA-CASE-NPO-13849-1			US-PATENT-CLASS-331-94.5P
		US-PATENT-APPL-SN-829314		NASA-CASE-NPO-13907-1				US-PATENT-4,173,001
		US-PATENT-APPL-SN-928131		US-PATENT-APPL-SN-668783		N80-14395* #	c 37	NASA-CASE-XNP-08835-1
		US-PATENT-CLASS-35-12E		US-PATENT-CLASS-123-DIG.12				US-PATENT-APPL-SN-834891
		US-PATENT-CLASS-35-12H		US-PATENT-CLASS-123-179R				US-PATENT-CLASS-204-224
		US-PATENT-4,164,079		US-PATENT-CLASS-123-3				US-PATENT-3,352,774
N79-31347* #	c 24	NASA-CASE-GSC-12303-1		US-PATENT-CLASS-23-288R		N80-14397* #	c 37	NASA-CASE-MFS-23284-1
		US-PATENT-APPL-SN-862880		US-PATENT-CLASS-423-650				US-PATENT-APPL-SN-753103
		US-PATENT-CLASS-106-74		US-PATENT-CLASS-48-DIG.8				US-PATENT-CLASS-204-180G
		US-PATENT-CLASS-106-84		US-PATENT-CLASS-48-10.3				US-PATENT-CLASS-204-299R
		US-PATENT-4,162,169		US-PATENT-CLASS-48-102A				US-PATENT-4,040,940
N79-31523* #	c 34	NASA-CASE-GSC-12253-1		US-PATENT-CLASS-48-107		N80-14398* #	c 37	NASA-CASE-GSC-12322-1
		US-PATENT-APPL-SN-853677		US-PATENT-CLASS-48-117				US-PATENT-APPL-SN-907436
		US-PATENT-CLASS-165-105		US-PATENT-CLASS-60-300				US-PATENT-CLASS-244-161
		US-PATENT-CLASS-165-32		US-PATENT-CLASS-60-606				
				US-PATENT-4,033,133				

		US-PATENT-CLASS-269-156			US-PATENT-APPL-SN-876440	N80-18372* #	c 36	NASA-CASE-NPO-14254-1
		US-PATENT-CLASS-294-113			US-PATENT-CLASS-23-927			US-PATENT-APPL-SN-876432
		US-PATENT-CLASS-294-86R			US-PATENT-CLASS-422-52			US-PATENT-CLASS-330-4
		US-PATENT-CLASS-414-1			US-PATENT-CLASS-435-34			US-PATENT-CLASS-331-94
		US-PATENT-4,173,324			US-PATENT-4,176,007			US-PATENT-CLASS-333-24R
N80-14423* #	c 43	NASA-CASE-MFS-23720-2	N80-16715* #	c 51	NASA-CASE-MFS-23883-1	N80-18393* #	c 37	US-PATENT-4,187,470
		US-PATENT-APPL-SN-848421			US-PATENT-APPL-SN-017888			NASA-CASE-ARC-11157-1
		US-PATENT-CLASS-73-12			US-PATENT-CLASS-204-180R			US-PATENT-APPL-SN-935827
		US-PATENT-CLASS-73-82			US-PATENT-CLASS-204-299R			US-PATENT-CLASS-220-423
		US-PATENT-4,157,655			US-PATENT-CLASS-424-12			US-PATENT-CLASS-220-445
N80-14472* #	c 44	NASA-CASE-LEW-12588-1	N80-16725* #	c 52	US-PATENT-4,181,589			US-PATENT-CLASS-220-901
		US-PATENT-APPL-SN-916655			NASA-CASE-NPO-14092-1	N80-18400* #	c 37	US-PATENT-4,184,609
		US-PATENT-CLASS-307-63			US-PATENT-APPL-SN-807597			NASA-CASE-NPO-12131-3
		US-PATENT-CLASS-307-66			US-PATENT-CLASS-128-DIG.9			US-PATENT-APPL-SN-096255
		US-PATENT-CLASS-323-15			US-PATENT-CLASS-128-348	N80-18402* #	c 37	NASA-CASE-LAR-11695-2
		US-PATENT-CLASS-323-19			US-PATENT-CLASS-128-6			US-PATENT-APPL-SN-103836
N80-14473* #	c 44	US-PATENT-4,175,249			US-PATENT-CLASS-138-103	N80-18498* #	c 43	NASA-CASE-LAR-12344-1
		NASA-CASE-MFS-23727-1			US-PATENT-CLASS-138-133			US-PATENT-APPL-SN-945041
		US-PATENT-APPL-SN-856465			US-PATENT-CLASS-138-33			US-PATENT-CLASS-343-188
		US-PATENT-CLASS-126-438			US-PATENT-CLASS-219-201			US-PATENT-CLASS-343-18D
		US-PATENT-CLASS-126-442			US-PATENT-CLASS-219-522			US-PATENT-CLASS-343-5CM
		US-PATENT-CLASS-350-295			US-PATENT-4,176,662			US-PATENT-CLASS-343-5W
		US-PATENT-CLASS-350-296	N80-18036* #	c 06	NASA-CASE-FRC-11009-1			US-PATENT-4,184,155
		US-PATENT-4,173,397			US-PATENT-APPL-SN-910708	N80-18550* #	c 44	NASA-CASE-NPO-14303-1
N80-14474* #	c 44	NASA-CASE-NPO-13652-3			US-PATENT-CLASS-340-177VA			NASA-CASE-NPO-14305-1
		US-PATENT-APPL-SN-809890			US-PATENT-CLASS-73-188			US-PATENT-APPL-SN-928133
		US-PATENT-APPL-SN-891358			US-PATENT-CLASS-73-189			US-PATENT-CLASS-156-104
		US-PATENT-CLASS-136-89P			US-PATENT-CLASS-73-212			US-PATENT-CLASS-156-278
		US-PATENT-CLASS-29-572			US-PATENT-4,184,149			US-PATENT-CLASS-156-285
		US-PATENT-CLASS-29-588	N80-18039* #	c 07	NASA-CASE-LEW-12971-1			US-PATENT-CLASS-156-303
		US-PATENT-CLASS-29-627			US-PATENT-APPL-SN-858936			US-PATENT-CLASS-156-312
		US-PATENT-4,133,697			US-PATENT-CLASS-60-240			US-PATENT-4,184,903
		US-PATENT-4,173,820			US-PATENT-CLASS-60-39.03	N80-18551* #	c 44	NASA-CASE-NPO-14096-1
N80-14579* #	c 45	NASA-CASE-NPO-14340-1			US-PATENT-CLASS-60-39.27			US-PATENT-APPL-SN-928128
		US-PATENT-APPL-SN-946992			US-PATENT-4,184,327			US-PATENT-CLASS-324-158D
		US-PATENT-CLASS-210-57	N80-18097* #	c 20	NASA-CASE-MS-18179-1			US-PATENT-CLASS-324-404
		US-PATENT-CLASS-210-63Z			US-PATENT-APPL-SN-931218			US-PATENT-4,184,111
		US-PATENT-CLASS-422-9			US-PATENT-CLASS-60-632	N80-18552* #	c 44	NASA-CASE-LAR-11999-1
		US-PATENT-4,172,786			US-PATENT-4,183,217			US-PATENT-APPL-SN-876299
N80-14603* #	c 46	NASA-CASE-NPO-14124-1	N80-18231* #	c 31	NASA-CASE-NPO-14382-1			US-PATENT-CLASS-250-211K
		US-PATENT-APPL-SN-863024			US-PATENT-APPL-SN-891373			US-PATENT-CLASS-250-231SE
		US-PATENT-CLASS-343-100ME			US-PATENT-CLASS-261-118			US-PATENT-4,184,072
		US-PATENT-CLASS-343-112D			US-PATENT-CLASS-422-224	N80-18667* #	c 48	NASA-CASE-MFS-23862-1
		US-PATENT-4,170,776			US-PATENT-CLASS-423-350			US-PATENT-APPL-SN-951423
N80-14684* #	c 52	NASA-CASE-LEW-12955-1			US-PATENT-4,188,368			US-PATENT-CLASS-73-170A
		US-PATENT-APPL-SN-829318	N80-18252* #	c 32	NASA-CASE-NPO-14152-1			US-PATENT-4,184,388
		US-PATENT-CLASS-128-276			US-PATENT-APPL-SN-899828	N80-18690* #	c 52	NASA-CASE-LEW-12723-1
		US-PATENT-4,157,718			US-PATENT-CLASS-178-58R			US-PATENT-APPL-SN-829317
N80-14687* #	c 52	NASA-CASE-NPO-14101-1			US-PATENT-CLASS-179-15BA			US-PATENT-CLASS-128-276
		US-PATENT-APPL-SN-772434			US-PATENT-4,187,394			US-PATENT-CLASS-128-760
		US-PATENT-CLASS-210-22	N80-18253* #	c 32	NASA-CASE-NPO-14328-1			US-PATENT-4,184,491
		US-PATENT-CLASS-210-321B			NASA-CASE-NPO-14579-1	N80-18691* #	c 52	NASA-CASE-ARC-11120-1
		US-PATENT-4,094,775			NASA-CASE-NPO-14590-1			US-PATENT-APPL-SN-796256
N80-14877* #	c 72	NASA-CASE-NPO-14078-1			US-PATENT-APPL-SN-956160			US-PATENT-CLASS-128-748
		US-PATENT-APPL-SN-856466			US-PATENT-CLASS-325-305			US-PATENT-CLASS-128-903
		US-PATENT-CLASS-250-281			US-PATENT-CLASS-325-307			US-PATENT-CLASS-73-724
		US-PATENT-CLASS-250-282			US-PATENT-CLASS-325-419	N80-18951* #	c 76	US-PATENT-4,186,749
		US-PATENT-CLASS-250-423P			US-PATENT-4,186,347			NASA-CASE-GSC-12291-1
		US-PATENT-4,158,775	N80-18285* #	c 33	NASA-CASE-NPO-14229-1			US-PATENT-APPL-SN-906298
N80-16116* #	c 25	NASA-CASE-ARC-11107-1			US-PATENT-APPL-SN-835419			US-PATENT-CLASS-125-23R
		US-PATENT-APPL-SN-883961			US-PATENT-APPL-SN-948886			US-PATENT-CLASS-269-21
		US-PATENT-CLASS-521-124			US-PATENT-CLASS-200-153S			US-PATENT-CLASS-51-235
		US-PATENT-CLASS-521-125			US-PATENT-CLASS-200-304			US-PATENT-CLASS-83-152
		US-PATENT-CLASS-521-127			US-PATENT-CLASS-333-262			US-PATENT-CLASS-83-870
		US-PATENT-CLASS-521-157			US-PATENT-4,187,416	N80-19237* #	c 26	US-PATENT-4,184,472
		US-PATENT-CLASS-528-73	N80-18286* #	c 33	NASA-CASE-GSC-12347-1			NASA-CASE-MS-18172-1
		US-PATENT-4,177,333			US-PATENT-APPL-SN-868249			US-PATENT-APPL-SN-118334
N80-16158* #	c 27	NASA-CASE-LAR-12099-1			US-PATENT-CLASS-174-142	N80-19425* #	c 33	NASA-CASE-LEW-12296-1
		US-PATENT-APPL-SN-906299			US-PATENT-CLASS-174-73R			US-PATENT-APPL-SN-122966
		US-PATENT-CLASS-528-207			US-PATENT-4,185,184	N80-20224* #	c 02	NASA-CASE-LAR-12261-1
		US-PATENT-CLASS-528-208	N80-18287* #	c 33	NASA-CASE-NPO-14224-1			US-PATENT-APPL-SN-964009
		US-PATENT-4,180,648			US-PATENT-APPL-SN-951829			US-PATENT-CLASS-73-117
N80-16163* #	c 27	NASA-CASE-NPO-14021-2			US-PATENT-CLASS-310-308			US-PATENT-CLASS-73-205L
		US-PATENT-APPL-SN-106188			US-PATENT-CLASS-343-100R			US-PATENT-4,188,823
N80-18261* #	c 32	NASA-CASE-NPO-14382-1			US-PATENT-CLASS-343-100ST	N80-20334* #	c 25	NASA-CASE-NPO-14079-1
		US-PATENT-APPL-SN-106118			US-PATENT-4,187,506			US-PATENT-APPL-SN-958573
N80-18321* #	c 36	NASA-CASE-LAR-12176-1	N80-18357* #	c 35	NASA-CASE-NPO-14501-1			US-PATENT-CLASS-250-307
		US-PATENT-APPL-SN-929083			US-PATENT-APPL-SN-918535			US-PATENT-CLASS-250-308
		US-PATENT-CLASS-332-751			US-PATENT-CLASS-264-40.4			US-PATENT-4,194,115
		US-PATENT-CLASS-350-359			US-PATENT-CLASS-73-343R	N80-20402* #	c 28	NASA-CASE-LEW-12081-2
		US-PATENT-CLASS-356-243			US-PATENT-CLASS-73-56			US-PATENT-APPL-SN-876432
		US-PATENT-CLASS-356-28			US-PATENT-4,185,493			US-PATENT-APPL-SN-837794
		US-PATENT-4,176,950	N80-18358* #	c 35	NASA-CASE-LAR-12269-1			US-PATENT-CLASS-149-1
N80-18452* #	c 44	NASA-CASE-MFS-23518-3			US-PATENT-APPL-SN-934576			US-PATENT-CLASS-423-648R
		US-PATENT-APPL-SN-829390			US-PATENT-CLASS-73-4R			US-PATENT-4,193,827
		US-PATENT-APPL-SN-910793			US-PATENT-CLASS-73-40	N80-20448* #	c 32	NASA-CASE-NPO-14480-1
		US-PATENT-CLASS-126-417			US-PATENT-4,182,158			US-PATENT-APPL-SN-910707
		US-PATENT-CLASS-126-901	N80-18359* #	c 35	NASA-CASE-GSC-12219-1			US-PATENT-CLASS-325-14
		US-PATENT-CLASS-428-629			US-PATENT-APPL-SN-891356			US-PATENT-CLASS-325-4
		US-PATENT-CLASS-428-650			US-PATENT-CLASS-325-363			US-PATENT-CLASS-325-8
		US-PATENT-CLASS-428-658			US-PATENT-CLASS-343-100ME			US-PATENT-CLASS-325-9
		US-PATENT-CLASS-428-675			US-PATENT-CLASS-356-216			US-PATENT-4,189,875
		US-PATENT-CLASS-428-680			US-PATENT-CLASS-73-355R	N80-20487* #	c 33	NASA-CASE-LEW-13148-1
		US-PATENT-4,104,134			US-PATENT-4,178,100			US-PATENT-APPL-SN-964754
		US-PATENT-4,177,325	N80-18364* #	c 35	NASA-CASE-NPO-13606-2			US-PATENT-CLASS-429-101
N80-16714* #	c 51	NASA-CASE-MS-16260-1			US-PATENT-APPL-SN-065676			US-PATENT-CLASS-429-105

		US-PATENT-CLASS-429-107			US-PATENT-CLASS-343-786			US-PATENT-APPL-SN-684045
		US-PATENT-CLASS-429-109			US-PATENT-CLASS-343-895			US-PATENT-APPL-SN-831632
		US-PATENT-4,192,910			US-PATENT-4,199,764			US-PATENT-CLASS-60-39,06
N80-20559* #	c 35	NASA-CASE-LAR-12304-1	N80-23559* #	c 33	NASA-CASE-NPO-13804-1	N80-26388* #	c 24	US-PATENT-CLASS-60-733
		US-PATENT-APPL-SN-928130			US-PATENT-APPL-SN-766999			US-PATENT-CLASS-60-746
		US-PATENT-CLASS-29-25.35			US-PATENT-CLASS-310-319			US-PATENT-4,204,402
		US-PATENT-CLASS-310-311			US-PATENT-CLASS-331-65			NASA-CASE-MFS-23626-1
		US-PATENT-CLASS-310-327			US-PATENT-CLASS-340-602			US-PATENT-APPL-SN-941711
		US-PATENT-CLASS-310-334			US-PATENT-CLASS-340-604			US-PATENT-CLASS-156-212
		US-PATENT-CLASS-310-360			US-PATENT-4,197,530			US-PATENT-CLASS-156-213
		US-PATENT-4,195,244	N80-23653* #	c 37	NASA-CASE-MSC-16938-1			US-PATENT-CLASS-156-285
N80-20560* #	c 35	NASA-CASE-FRC-10093-1			US-PATENT-APPL-SN-938582			US-PATENT-CLASS-260-17.2
		US-PATENT-APPL-SN-878539			US-PATENT-CLASS-151-41.76			US-PATENT-CLASS-264-118
		US-PATENT-CLASS-219-85CA			US-PATENT-4,193,435			US-PATENT-CLASS-264-119
		US-PATENT-CLASS-219-85CM	N80-23654* #	c 37	NASA-CASE-NPO-14473-1			US-PATENT-CLASS-264-124
		US-PATENT-CLASS-219-85R			US-PATENT-APPL-SN-938300	N80-26446* #	c 27	US-PATENT-4,204,899
		US-PATENT-CLASS-338-2			US-PATENT-CLASS-137-375			NASA-CASE-MSC-16074-1
		US-PATENT-4,195,279			US-PATENT-CLASS-137-625.4			US-PATENT-APPL-SN-747674
N80-20563* #	c 35	NASA-CASE-NPO-14093-1			US-PATENT-CLASS-251-138			US-PATENT-CLASS-204-159.15
		US-PATENT-APPL-SN-880729			US-PATENT-CLASS-251-88			US-PATENT-CLASS-204-159.19
		US-PATENT-CLASS-356-346			US-PATENT-4,195,666			US-PATENT-CLASS-525-426
		US-PATENT-4,193,693	N80-23655* #	c 37	NASA-CASE-GSC-12318-1			US-PATENT-CLASS-8-DIG.12
N80-20808* #	c 44	NASA-CASE-NPO-14237-1			US-PATENT-APPL-SN-894213			US-PATENT-CLASS-8-DIG.18
		US-PATENT-APPL-SN-897831			US-PATENT-CLASS-219-160			US-PATENT-CLASS-8-115.5
		US-PATENT-CLASS-126-263			US-PATENT-CLASS-219-161			US-PATENT-4,203,723
		US-PATENT-CLASS-149-15			US-PATENT-CLASS-228-212	N80-26599* #	c 33	NASA-CASE-FRC-10113-1
		US-PATENT-CLASS-149-37			US-PATENT-CLASS-228-222			US-PATENT-APPL-SN-885066
		US-PATENT-CLASS-220-429			US-PATENT-CLASS-228-44.1R			US-PATENT-CLASS-324-51
		US-PATENT-4,193,388			US-PATENT-CLASS-269-287			US-PATENT-4,204,154
N80-20810* #	c 44	NASA-CASE-LAR-12205-1	N80-23711* #	c 43	US-PATENT-4,196,840	N80-26601* #	c 33	NASA-CASE-GSC-12555-1
		US-PATENT-APPL-SN-900843			NASA-CASE-MFS-23720-1			US-PATENT-APPL-SN-153240
		US-PATENT-CLASS-126-419			US-PATENT-APPL-SN-848414	N80-26635* #	c 35	NASA-CASE-NPO-14372-1
		US-PATENT-CLASS-126-434			US-PATENT-CLASS-73-12			US-PATENT-APPL-SN-646333
		US-PATENT-CLASS-126-437			US-PATENT-CLASS-73-82			US-PATENT-APPL-SN-956529
		US-PATENT-CLASS-165-32			US-PATENT-4,195,512			US-PATENT-CLASS-250-338
		US-PATENT-4,192,290	N80-23969* #	c 52	NASA-CASE-FRC-11012-1			US-PATENT-CLASS-250-352
N80-21138* #	c 74	NASA-CASE-LAR-12178-1			US-PATENT-APPL-SN-928137			US-PATENT-CLASS-250-353
		US-PATENT-APPL-SN-953390			US-PATENT-CLASS-128-666			US-PATENT-CLASS-356-328
		US-PATENT-CLASS-350-25			US-PATENT-CLASS-128-690			US-PATENT-4,205,229
		US-PATENT-CLASS-350-285	N80-24149* #	c 74	US-PATENT-4,198,988	N80-26658* #	c 37	NASA-CASE-LEW-12131-2
		US-PATENT-CLASS-356-150			NASA-CASE-GSC-12348-1			US-PATENT-APPL-SN-801290
		US-PATENT-CLASS-356-152			US-PATENT-APPL-SN-929088			US-PATENT-APPL-SN-931090
		US-PATENT-4,189,234			US-PATENT-CLASS-51-277			US-PATENT-CLASS-415-174
N80-21140* #	c 74	NASA-CASE-GSC-12357-1			US-PATENT-CLASS-51-283R			US-PATENT-CLASS-415-196
		US-PATENT-APPL-SN-943089			US-PATENT-CLASS-65-61			US-PATENT-4,135,851
		US-PATENT-CLASS-250-277CH			US-PATENT-4,198,788	N80-26660* #	c 37	US-PATENT-4,207,024
		US-PATENT-CLASS-250-280	N80-24437* #	c 27	NASA-CASE-LEW-13027-1			NASA-CASE-NPO-15037-1
		US-PATENT-CLASS-350-162R			US-PATENT-APPL-SN-958575			US-PATENT-APPL-SN-161257
		US-PATENT-CLASS-356-334			US-PATENT-CLASS-427-164	N80-27067* #	c 51	NASA-CASE-MSC-16777-1
		US-PATENT-4,192,994			US-PATENT-CLASS-427-38			US-PATENT-APPL-SN-893657
N80-21719* #	c 35	NASA-CASE-GSC-12273-1			US-PATENT-CLASS-427-40			US-PATENT-CLASS-204-195B
		US-PATENT-APPL-SN-697830			US-PATENT-CLASS-428-421			US-PATENT-CLASS-23-230B
		US-PATENT-CLASS-244-165			US-PATENT-CLASS-428-474			US-PATENT-CLASS-422-68
		US-PATENT-CLASS-244-170			US-PATENT-4,199,650			US-PATENT-CLASS-435-289
		US-PATENT-4,193,570	N80-24438* #	c 27	NASA-CASE-MSC-14903-3			US-PATENT-CLASS-435-290
N80-21828* #	c 44	NASA-CASE-MFS-23515-1			US-PATENT-APPL-SN-706424			US-PATENT-CLASS-435-291
		US-PATENT-APPL-SN-880726			US-PATENT-APPL-SN-907479			US-PATENT-CLASS-435-3
		US-PATENT-CLASS-415-101			US-PATENT-CLASS-260-DIG.29			US-PATENT-CLASS-435-311
		US-PATENT-CLASS-415-2			US-PATENT-CLASS-525-326			US-PATENT-CLASS-435-316
		US-PATENT-4,191,505			US-PATENT-CLASS-525-336			US-PATENT-CLASS-435-32
N80-23383* #	c 25	NASA-CASE-ARC-11154-1			US-PATENT-CLASS-525-338			US-PATENT-CLASS-435-34
		US-PATENT-APPL-SN-921626			US-PATENT-CLASS-525-340			US-PATENT-CLASS-435-38
		US-PATENT-CLASS-521-146			US-PATENT-CLASS-525-374			US-PATENT-CLASS-435-39
		US-PATENT-CLASS-521-55			US-PATENT-CLASS-525-375			US-PATENT-4,204,037
		US-PATENT-CLASS-521-918			US-PATENT-CLASS-526-261	N80-27072* #	c 52	NASA-CASE-NPO-14212-1
		US-PATENT-CLASS-525-4			US-PATENT-CLASS-526-275			US-PATENT-APPL-SN-838308
		US-PATENT-CLASS-55-66			US-PATENT-CLASS-526-278			US-PATENT-CLASS-128-642
		US-PATENT-CLASS-55-67			US-PATENT-CLASS-526-278			US-PATENT-CLASS-128-774
		US-PATENT-CLASS-55-68			US-PATENT-CLASS-528-481			US-PATENT-CLASS-128-782
		US-PATENT-CLASS-55-72			US-PATENT-4,200,721			US-PATENT-CLASS-128-782
		US-PATENT-4,198,792	N80-24510* #	c 32	NASA-CASE-NPO-14524-1			US-PATENT-CLASS-33-125R
N80-23419* #	c 26	NASA-CASE-MFS-23816-1			NASA-CASE-NPO-14527-1			US-PATENT-CLASS-338-2
		US-PATENT-APPL-SN-974292			US-PATENT-APPL-SN-957452			US-PATENT-CLASS-73-781
		US-PATENT-CLASS-148-32			US-PATENT-CLASS-350-294	N80-27163* #	c 72	US-PATENT-4,204,544
		US-PATENT-CLASS-148-392			US-PATENT-CLASS-350-6.5			NASA-CASE-NPO-14324-1
		US-PATENT-CLASS-75-135			US-PATENT-CLASS-350-6.6			US-PATENT-APPL-SN-940970
		US-PATENT-CLASS-75-138			US-PATENT-CLASS-356-28.5			US-PATENT-CLASS-250-427
		US-PATENT-CLASS-75-178R			US-PATENT-4,201,468			US-PATENT-CLASS-313-156
		US-PATENT-4,198,232	N80-24573* #	c 34	NASA-CASE-LEW-12441-2			US-PATENT-CLASS-313-362
N80-23452* #	c 27	NASA-CASE-ARC-10980-1			US-PATENT-APPL-SN-559846			US-PATENT-CLASS-313-363
		US-PATENT-APPL-SN-694407			US-PATENT-APPL-SN-856462			US-PATENT-4,206,383
		US-PATENT-CLASS-204-171			US-PATENT-CLASS-239-127.1	N80-27185* #	c 74	NASA-CASE-LAR-12251-1
		US-PATENT-CLASS-210-23H			US-PATENT-CLASS-60-267			US-PATENT-APPL-SN-953389
		US-PATENT-CLASS-210-500M			US-PATENT-4,199,937			US-PATENT-CLASS-350-175E
		US-PATENT-CLASS-427-245	N80-24741* #	c 44	NASA-CASE-NPO-14635-1			US-PATENT-CLASS-350-226
		US-PATENT-CLASS-427-41			US-PATENT-APPL-SN-008212			US-PATENT-4,206,970
		US-PATENT-4,199,448			US-PATENT-CLASS-136-89SG	N80-28300* #	c 02	NASA-CASE-FRC-11024-1
N80-23471* #	c 28	NASA-CASE-NPO-14109-1			US-PATENT-CLASS-156-DIG.64			US-PATENT-APPL-SN-015983
		US-PATENT-APPL-SN-946890			US-PATENT-CLASS-156-605			US-PATENT-CLASS-73-180
		US-PATENT-CLASS-149-108.4			US-PATENT-CLASS-156-617SP			US-PATENT-CLASS-73-182
		US-PATENT-CLASS-23-300			US-PATENT-CLASS-252-62.3E			US-PATENT-CLASS-73-861.65
		US-PATENT-CLASS-23-302A			US-PATENT-4,210,622			US-PATENT-CLASS-73-861.66
		US-PATENT-CLASS-23-302R	N80-24906* #	c 46	NASA-CASE-NPO-14558-1			US-PATENT-4,212,199
		US-PATENT-CLASS-23-302T			US-PATENT-APPL-SN-945436	N80-28492* #	c 26	NASA-CASE-LAR-11821-1
		US-PATENT-4,198,209			US-PATENT-CLASS-73-155			US-PATENT-APPL-SN-023501
N80-23524* #	c 32	NASA-CASE-NPO-14519-1			US-PATENT-4,196,619			US-PATENT-CLASS-148-131
		US-PATENT-APPL-SN-008207	N80-26298* #	c 07	NASA-CASE-ARC-10814-2			US-PATENT-CLASS-266-119

		US-PATENT-CLASS-266-249				US-PATENT-CLASS-363-60			
		US-PATENT-CLASS-266-274				US-PATENT-4,217,633			
		US-PATENT-4,212,690				NASA-CASE-ARC-11174-1			
N80-28536* #	c 28	NASA-CASE-NPO-14477-1	N80-32516* #	c 27	NASA-CASE-LEW-13103-1	US-PATENT-APPL-SN-929086			
		US-PATENT-APPL-SN-951830			US-PATENT-APPL-SN-971596	US-PATENT-CLASS-260-17.2			
		US-PATENT-CLASS-149-19.2			US-PATENT-CLASS-156-272	US-PATENT-CLASS-428-114			
		US-PATENT-CLASS-149-19.9			US-PATENT-CLASS-156-292	US-PATENT-CLASS-428-528			
		US-PATENT-CLASS-149-20			US-PATENT-CLASS-204-159.11	US-PATENT-CLASS-428-541			
		US-PATENT-4,210,474			US-PATENT-CLASS-204-159.14	US-PATENT-CLASS-428-921			
N80-28578* #	c 32	NASA-CASE-GSC-12365-1			US-PATENT-CLASS-264-212	US-PATENT-4,209,561			
		US-PATENT-APPL-SN-039031			US-PATENT-CLASS-264-22	N80-14000* #	c 24	NASA-CASE-LAR-12065-1	
		US-PATENT-CLASS-343-100SA			US-PATENT-CLASS-427-44	US-PATENT-APPL-SN-898971			
		US-PATENT-CLASS-343-844			US-PATENT-CLASS-428-500	US-PATENT-CLASS-156-330			
		US-PATENT-CLASS-343-854			US-PATENT-CLASS-429-139	US-PATENT-CLASS-428-113			
		US-PATENT-4,213,131			US-PATENT-4,218,280	US-PATENT-CLASS-428-114			
N80-28686* #	c 35	NASA-CASE-LAR-11370-1	N80-32583* #	c 31	NASA-CASE-GSC-12191-1	US-PATENT-CLASS-428-140			
		US-PATENT-APPL-SN-940689			US-PATENT-APPL-SN-009886	US-PATENT-CLASS-428-413			
		US-PATENT-CLASS-250-457			US-PATENT-CLASS-165-16	US-PATENT-CLASS-428-480			
		US-PATENT-CLASS-250-491			US-PATENT-CLASS-236-13	US-PATENT-CLASS-428-902			
		US-PATENT-4,213,051			US-PATENT-CLASS-236-44C	US-PATENT-4,229,473			
N80-28687* #	c 35	NASA-CASE-LAR-12285-1			US-PATENT-CLASS-236-49	N80-14015* #	c 25	NASA-CASE-NPO-14143-1	
		US-PATENT-APPL-SN-929087			US-PATENT-4,210,278	US-PATENT-APPL-SN-938297			
		US-PATENT-CLASS-356-244	N80-32584* #	c 31	NASA-CASE-NPO-14191-1	US-PATENT-CLASS-250-343			
		US-PATENT-CLASS-356-369			US-PATENT-APPL-SN-830846	US-PATENT-CLASS-356-437			
		US-PATENT-4,210,401			US-PATENT-CLASS-181-102	US-PATENT-4,234,258			
N80-28711* #	c 37	NASA-CASE-LEW-12119-1			US-PATENT-CLASS-367-27	N80-14016* #	c 25	NASA-CASE-ARC-11241-1	
		US-PATENT-APPL-SN-672219			US-PATENT-CLASS-367-36	US-PATENT-APPL-SN-037066			
		US-PATENT-CLASS-277-153			US-PATENT-CLASS-367-57	US-PATENT-CLASS-260-33.8F			
		US-PATENT-CLASS-277-193			US-PATENT-4,214,226	US-PATENT-CLASS-528-382			
		US-PATENT-CLASS-277-224	N80-32604* #	c 32	NASA-CASE-MSC-18334-1	US-PATENT-CLASS-528-401			
		US-PATENT-4,212,477			US-PATENT-APPL-SN-051270	US-PATENT-CLASS-528-422			
N80-29539* #	c 32	NASA-CASE-LAR-11745-1			US-PATENT-CLASS-343-700MS	US-PATENT-4,234,715			
		US-PATENT-APPL-SN-799025			US-PATENT-CLASS-343-830	N80-14076* #	c 27	NASA-CASE-NPO-14001-1	
		US-PATENT-CLASS-343-786			US-PATENT-4,218,682	US-PATENT-APPL-SN-771245			
		US-PATENT-4,089,004	N80-32605* #	c 32	NASA-CASE-NPO-14253-1	US-PATENT-CLASS-210-24R			
N80-29583* #	c 33	NASA-CASE-FRC-11055-1			NASA-CASE-NPO-14640-1	US-PATENT-CLASS-260-17A			
		US-PATENT-APPL-SN-172098			US-PATENT-APPL-SN-938293	US-PATENT-CLASS-260-2.1E			
N80-29703* #	c 37	NASA-CASE-NPO-14406-1			US-PATENT-CLASS-333-12	US-PATENT-CLASS-260-858			
		US-PATENT-APPL-SN-951828			US-PATENT-CLASS-333-252	US-PATENT-CLASS-260-886			
		US-PATENT-CLASS-125-21			US-PATENT-CLASS-333-99S	US-PATENT-CLASS-260-8900			
		US-PATENT-CLASS-83-820			US-PATENT-4,215,327	US-PATENT-CLASS-260-895			
N80-29834* #	c 44	US-PATENT-4,191,159	N80-32650* #	c 33	NASA-CASE-NPO-14424-1	US-PATENT-CLASS-260-898			
		NASA-CASE-LAR-11551-1			NASA-CASE-NPO-14430-1	US-PATENT-CLASS-260-901			
		US-PATENT-APPL-SN-883090			US-PATENT-APPL-SN-918534	US-PATENT-CLASS-521-27			
		US-PATENT-CLASS-290-53			US-PATENT-CLASS-324-62	US-PATENT-CLASS-521-32			
		US-PATENT-CLASS-310-30			US-PATENT-CLASS-324-64	US-PATENT-CLASS-521-62			
		US-PATENT-4,191,893	N80-32651* #	c 33	US-PATENT-4,218,650	US-PATENT-4,119,581			
N80-29835* #	c 44	NASA-CASE-NPO-13786-1			NASA-CASE-MFS-25211-1	N80-14077* #	c 27	NASA-CASE-MSC-12631-3	
		US-PATENT-APPL-SN-696374			US-PATENT-APPL-SN-168995	US-PATENT-APPL-SN-006952			
		US-PATENT-CLASS-148-1.5	N80-32716* #	c 37	NASA-CASE-MFS-23777-1	US-PATENT-APPL-SN-568541			
		US-PATENT-CLASS-357-30			US-PATENT-APPL-SN-931217	US-PATENT-APPL-SN-785279			
		US-PATENT-CLASS-357-52			US-PATENT-CLASS-318-15	US-PATENT-CLASS-156-154			
		US-PATENT-CLASS-357-91			US-PATENT-CLASS-74-425	US-PATENT-CLASS-156-160			
		US-PATENT-4,090,213			US-PATENT-CLASS-74-661	US-PATENT-CLASS-156-163			
N80-31472* #	c 23	NASA-CASE-ARC-11243-2			US-PATENT-CLASS-74-665C	US-PATENT-CLASS-156-212			
		US-PATENT-APPL-SN-183707			US-PATENT-4,215,592	US-PATENT-CLASS-156-267			
N80-31790* #	c 37	NASA-CASE-LEW-12274-1	N80-32717* #	c 37	NASA-CASE-GSC-12289-1	US-PATENT-CLASS-156-295			
		US-PATENT-APPL-SN-950876			US-PATENT-APPL-SN-943086	US-PATENT-CLASS-156-323			
		US-PATENT-CLASS-417-383			US-PATENT-CLASS-198-847	US-PATENT-CLASS-156-331			
		US-PATENT-CLASS-60-520			US-PATENT-CLASS-198-848	US-PATENT-4,032,089			
		US-PATENT-4,215,548			US-PATENT-CLASS-474-205	US-PATENT-4,225,372			
N80-32244* #	c 76	NASA-CASE-NPO-14298-1			US-PATENT-4,215,590	N80-14078* #	c 27	NASA-CASE-LAR-12054-2	
		US-PATENT-APPL-SN-938579	N80-33081* #	c 52	NASA-CASE-ARC-11258-1	US-PATENT-APPL-SN-011737			
		US-PATENT-CLASS-156-DIG.96			US-PATENT-APPL-SN-185865	US-PATENT-APPL-SN-839963			
		US-PATENT-CLASS-422-246	N80-33186* #	c 72	NASA-CASE-LEW-12940-1	US-PATENT-CLASS-264-137			
		US-PATENT-4,216,186			US-PATENT-APPL-SN-953391	US-PATENT-CLASS-427-385.5			
N80-32245* #	c 76	NASA-CASE-NPO-14295-1			US-PATENT-CLASS-313-231.4	US-PATENT-CLASS-427-429			
		US-PATENT-APPL-SN-901055			US-PATENT-CLASS-313-362	US-PATENT-CLASS-428-473.5			
		US-PATENT-CLASS-156-DIG.64			US-PATENT-4,218,633	US-PATENT-4,166,170			
		US-PATENT-CLASS-156-DIG.88	N80-33210* #	c 74	NASA-CASE-MSC-18255-1	US-PATENT-4,233,258			
		US-PATENT-CLASS-156-601			US-PATENT-APPL-SN-025163	N80-14103* #	c 28	NASA-CASE-LEW-12081-3	
		US-PATENT-CLASS-156-617SP			US-PATENT-CLASS-250-347	US-PATENT-APPL-SN-009887			
		US-PATENT-4,217,165			US-PATENT-CLASS-250-352	US-PATENT-APPL-SN-676432			
N80-32359* #	c 04	NASA-CASE-NPO-14173-1			US-PATENT-CLASS-250-353	US-PATENT-APPL-SN-837794			
		US-PATENT-APPL-SN-938581			US-PATENT-CLASS-350-55	US-PATENT-CLASS-149-1			
		US-PATENT-CLASS-343-112R			US-PATENT-CLASS-356-72	US-PATENT-CLASS-156-344			
		US-PATENT-4,215,345			US-PATENT-4,215,273	US-PATENT-CLASS-423-648R			
N80-32392* #	c 07	NASA-CASE-ARC-10977-1	N80-33482* #	c 24	NASA-CASE-LEW-11930-3	US-PATENT-CLASS-44-7R			
		US-PATENT-APPL-SN-023436			US-PATENT-APPL-SN-513611	US-PATENT-CLASS-55-2			
		US-PATENT-CLASS-239-127.3			US-PATENT-APPL-SN-616528	US-PATENT-CLASS-62-12			
		US-PATENT-CLASS-239-265.33			US-PATENT-APPL-SN-764245	US-PATENT-CLASS-62-18			
		US-PATENT-CLASS-60-264			US-PATENT-CLASS-75-200	US-PATENT-CLASS-62-40			
		US-PATENT-4,214,703			US-PATENT-CLASS-75-222	US-PATENT-CLASS-62-47			
N80-32484* #	c 26	NASA-CASE-LEW-12542-3			US-PATENT-4,214,905	US-PATENT-4,077,788			
		US-PATENT-APPL-SN-007083	N81-12174* #	c 24	NASA-CASE-LAR-12742-1	US-PATENT-4,193,827			
		US-PATENT-APPL-SN-803822			US-PATENT-APPL-SN-189234	US-PATENT-4,229,196			
		US-PATENT-CLASS-75-124	N81-12330* #	c 33	NASA-CASE-MFS-25535-1	N80-14137* #	c 31	NASA-CASE-KSC-11064-1	
		US-PATENT-4,214,902			US-PATENT-APPL-SN-199765	US-PATENT-APPL-SN-897840			
N80-32514* #	c 27	NASA-CASE-NPO-13137-1	N81-12542* #	c 44	NASA-CASE-LEW-12806-2	US-PATENT-CLASS-169-62			
		US-PATENT-APPL-SN-332123			US-PATENT-APPL-SN-065676	US-PATENT-CLASS-169-70			
		US-PATENT-APPL-SN-374810			US-PATENT-APPL-SN-915050	US-PATENT-4,219,084			
		US-PATENT-CLASS-568-852			US-PATENT-CLASS-136-249	N80-14185* #	c 32	NASA-CASE-NPO-14536-1	
		US-PATENT-CLASS-568-861			US-PATENT-CLASS-136-291	US-PATENT-APPL-SN-974471			
		US-PATENT-4,118,427			US-PATENT-CLASS-363-147	US-PATENT-CLASS-343-100TD			
N80-32515* #	c 27	NASA-CASE-NPO-13899-1			US-PATENT-CLASS-363-27	US-PATENT-4,233,606			
						N80-14186* #	c 32	NASA-CASE-NPO-14749-1	



			US-PATENT-APPL-SN-078521				US-PATENT-4,220,171				US-PATENT-APPL-SN-893857
			US-PATENT-CLASS-375-107				NASA-CASE-NPO-10830-1				US-PATENT-CLASS-156-292
			US-PATENT-CLASS-455-51				US-PATENT-APPL-SN-825489				US-PATENT-CLASS-228-118
			US-PATENT-CLASS-455-619				US-PATENT-CLASS-117-6				US-PATENT-CLASS-228-170
			US-PATENT-CLASS-455-71				US-PATENT-CLASS-138.8R				US-PATENT-CLASS-228-174
			US-PATENT-4,234,971				US-PATENT-CLASS-260-33.6UB				US-PATENT-CLASS-228-190
N81-14187* #	c 32		NASA-CASE-MSC-16800-1				US-PATENT-CLASS-33.8UB				US-PATENT-4,211,354
			US-PATENT-APPL-SN-953313				US-PATENT-CLASS-37N	N81-17187* #	c 25		NASA-CASE-NPO-13530-1
			US-PATENT-CLASS-343-727				US-PATENT-CLASS-41R				US-PATENT-CLASS-210-500M
			US-PATENT-CLASS-343-789				US-PATENT-CLASS-77.5AQ				US-PATENT-CLASS-260-2.1
			US-PATENT-CLASS-343-797				US-PATENT-CLASS-77.5CH				US-PATENT-CLASS-260-2.2R
			US-PATENT-4,218,885				US-PATENT-CLASS-859R				US-PATENT-4,014,798
N81-14220* #	c 33		NASA-CASE-NPO-14163-1				US-PATENT-CLASS-94.9N	N81-17259* #	c 27		NASA-CASE-ARC-11248-1
			US-PATENT-APPL-SN-878541				US-PATENT-3,655,814				US-PATENT-APPL-SN-028300
			US-PATENT-CLASS-363-56				NASA-CASE-LAR-12723-1				US-PATENT-CLASS-528-362
			US-PATENT-CLASS-363-71				US-PATENT-APPL-SN-199768				US-PATENT-CLASS-528-401
			US-PATENT-4,222,098				NASA-CASE-NPO-14110-1				US-PATENT-CLASS-528-422
N81-14221* #	c 33		NASA-CASE-GSC-12411-1				US-PATENT-APPL-SN-947000				US-PATENT-CLASS-528-423
			US-PATENT-APPL-SN-965367				US-PATENT-CLASS-149-108.4				US-PATENT-4,242,498
			US-PATENT-CLASS-340-309.4				US-PATENT-CLASS-23-293R	N81-17260* #	c 27		NASA-CASE-LEW-13226-1
			US-PATENT-CLASS-340-310A				US-PATENT-CLASS-252-364				US-PATENT-APPL-SN-070771
			US-PATENT-CLASS-340-310R				US-PATENT-CLASS-260-96D				US-PATENT-CLASS-260-326N
			US-PATENT-CLASS-340-870.24				US-PATENT-CLASS-423-1				US-PATENT-CLASS-260-326S
			US-PATENT-CLASS-368-47				US-PATENT-CLASS-423-131				US-PATENT-CLASS-260-37EP
			US-PATENT-CLASS-370-85				US-PATENT-CLASS-423-658.5				US-PATENT-CLASS-528-118
			US-PATENT-4,228,422				US-PATENT-CLASS-525-384				US-PATENT-CLASS-528-322
N81-14287* #	c 35		NASA-CASE-NPO-14513-1				US-PATENT-CLASS-526-914				US-PATENT-CLASS-538-117
			US-PATENT-APPL-SN-025162				US-PATENT-CLASS-75-25				US-PATENT-4,244,857
			US-PATENT-CLASS-165-105				US-PATENT-4,229,182	N81-17261* #	c 27		NASA-CASE-NPO-14315-1
			US-PATENT-CLASS-62-514R				NASA-CASE-NPO-13758-2				US-PATENT-APPL-SN-900659
			US-PATENT-4,218,892				US-PATENT-APPL-SN-623389				US-PATENT-CLASS-201-10
N81-14317* #	c 37		NASA-CASE-MSC-16973-1				US-PATENT-APPL-SN-727444				US-PATENT-CLASS-201-25
			US-PATENT-APPL-SN-969756				US-PATENT-CLASS-110-218				US-PATENT-CLASS-201-8
			US-PATENT-CLASS-150-11				US-PATENT-CLASS-110-229				US-PATENT-CLASS-44-50
			US-PATENT-CLASS-156-294				US-PATENT-CLASS-110-232				US-PATENT-CLASS-44-62
			US-PATENT-CLASS-52-232				US-PATENT-CLASS-110-343				US-PATENT-4,246,001
			US-PATENT-CLASS-52-743				US-PATENT-CLASS-110-347	N81-17262* #	c 27		NASA-CASE-ARC-11253-1
			US-PATENT-4,235,060				US-PATENT-CLASS-202-118				US-PATENT-APPL-SN-028301
N81-14318* #	c 37		NASA-CASE-NPO-14220-1				US-PATENT-CLASS-264-23				US-PATENT-CLASS-528-310
			US-PATENT-APPL-SN-907421				US-PATENT-CLASS-425-378R				US-PATENT-CLASS-528-362
			US-PATENT-CLASS-60-518				US-PATENT-4,206,713				US-PATENT-CLASS-528-401
			US-PATENT-CLASS-74-417				NASA-CASE-MSC-18035-1				US-PATENT-4,245,085
			US-PATENT-4,228,656				US-PATENT-APPL-SN-041142	N81-17348* #	c 33		NASA-CASE-MFS-23845-1
N81-14319* #	c 37		NASA-CASE-LAR-11855-1				US-PATENT-CLASS-375-1				US-PATENT-APPL-SN-938298
			US-PATENT-APPL-SN-953314				US-PATENT-CLASS-375-115				US-PATENT-CLASS-307-233R
			US-PATENT-CLASS-407-117				US-PATENT-CLASS-375-58				US-PATENT-CLASS-307-306
			US-PATENT-CLASS-407-85				US-PATENT-4,221,005				US-PATENT-CLASS-333-204
			US-PATENT-CLASS-408-1R				NASA-CASE-NPO-14444-1				US-PATENT-4,227,096
			US-PATENT-CLASS-82-1.2				US-PATENT-APPL-SN-017890	N81-17349* #	c 33		NASA-CASE-MSC-16747-1
			US-PATENT-CLASS-82-1C				US-PATENT-CLASS-332-22				US-PATENT-APPL-SN-974475
			US-PATENT-CLASS-82-36R				US-PATENT-CLASS-332-23R				US-PATENT-CLASS-328-134
			US-PATENT-4,218,941				US-PATENT-CLASS-375-54				US-PATENT-CLASS-328-37
N81-14320* #	c 37		NASA-CASE-GSC-12429-1				US-PATENT-CLASS-375-67				US-PATENT-CLASS-328-55
			US-PATENT-APPL-SN-009888				US-PATENT-CLASS-455-102				US-PATENT-CLASS-331-48
			US-PATENT-CLASS-244-161				US-PATENT-4,216,542				US-PATENT-4,241,308
			US-PATENT-CLASS-294-106				NASA-CASE-NPO-14998-1	N81-17432* #	c 37		NASA-CASE-NPO-14388-1
			US-PATENT-CLASS-414-1				US-PATENT-APPL-SN-195547				US-PATENT-APPL-SN-008208
			US-PATENT-4,219,171				NASA-CASE-MSC-18134-1				US-PATENT-CLASS-60-518
N81-14389* #	c 44		NASA-CASE-NPO-14416-1				US-PATENT-APPL-SN-974472				US-PATENT-CLASS-74-417
			US-PATENT-APPL-SN-014664				US-PATENT-CLASS-277-181				US-PATENT-4,240,256
			US-PATENT-CLASS-29-DIG.1				US-PATENT-CLASS-277-229	N81-17433* #	c 37		NASA-CASE-ARC-11251-1
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N81-29764* #	c 52	US-PATENT-CLASS-73-683.31	US-PATENT-CLASS-350-370	US-PATENT-CLASS-204-117
		US-PATENT-CLASS-73-684.52	US-PATENT-CLASS-356-350	US-PATENT-CLASS-204-195S
N81-29766* #	c 52	US-PATENT-4,274,285	US-PATENT-CLASS-356-351	US-PATENT-CLASS-204-263
		NASA-CASE-LEW-13148-2	US-PATENT-4,280,768	US-PATENT-CLASS-204-264
N81-29767* #	c 52	US-PATENT-APPL-SN-061555	NASA-CASE-NPO-15227-1	US-PATENT-CLASS-204-266
		US-PATENT-APPL-SN-964754	US-PATENT-APPL-SN-163840	US-PATENT-CLASS-204-275
N81-29768* #	c 52	US-PATENT-CLASS-204-2.1	US-PATENT-CLASS-118-50	US-PATENT-CLASS-204-278
		US-PATENT-4,192,910	US-PATENT-CLASS-118-52	US-PATENT-CLASS-204-278
N81-29769* #	c 52	US-PATENT-4,270,884	US-PATENT-CLASS-268-21	US-PATENT-CLASS-23-230PC
		NASA-CASE-NPO-13689-2	US-PATENT-CLASS-427-240	US-PATENT-CLASS-23-232E
N81-29770* #	c 52	US-PATENT-APPL-SN-093714	US-PATENT-4,280,689	US-PATENT-CLASS-422-80
		US-PATENT-APPL-SN-683073	NASA-CASE-FRC-11044-1	US-PATENT-4,293,522
N81-29771* #	c 52	US-PATENT-APPL-SN-837513	US-PATENT-APPL-SN-135056	NASA-CASE-NPO-14054-1
		US-PATENT-CLASS-136-255	US-PATENT-CLASS-318-683	US-PATENT-APPL-SN-969761
N81-29772* #	c 52	US-PATENT-CLASS-136-258	US-PATENT-CLASS-74-89	US-PATENT-CLASS-343-5CM
		US-PATENT-CLASS-136-262	US-PATENT-CLASS-92-130R	US-PATENT-4,292,834
N81-29773* #	c 52	US-PATENT-CLASS-357-15	US-PATENT-4,274,038	NASA-CASE-MFS-25383-1
		US-PATENT-CLASS-357-30	NASA-CASE-LAR-12532-1	US-PATENT-APPL-SN-171933
N81-29774* #	c 52	US-PATENT-4,278,830	US-PATENT-APPL-SN-135040	US-PATENT-CLASS-118-423
		NASA-CASE-LEW-13102-1	US-PATENT-CLASS-73-147	US-PATENT-CLASS-118-500
N81-29775* #	c 52	US-PATENT-APPL-SN-282298	US-PATENT-4,286,460	US-PATENT-CLASS-134-137
		NASA-CASE-ARC-11031-1	NASA-CASE-NPO-14273-1	US-PATENT-4,286,542
N81-29776* #	c 52	US-PATENT-APPL-SN-897828	US-PATENT-APPL-SN-969759	NASA-CASE-LEW-12989-1
		US-PATENT-CLASS-128-275	US-PATENT-CLASS-110-234	US-PATENT-APPL-SN-092145
N81-29777* #	c 52	US-PATENT-CLASS-128-760	US-PATENT-CLASS-110-245	US-PATENT-CLASS-277-27
		US-PATENT-4,190,060	US-PATENT-CLASS-110-255	US-PATENT-CLASS-277-40
N81-29778* #	c 52	NASA-CASE-ARC-11118-1	US-PATENT-CLASS-110-268	US-PATENT-CLASS-277-83R
		US-PATENT-APPL-SN-850504	US-PATENT-CLASS-122-40	US-PATENT-4,291,887
N81-29779* #	c 52	US-PATENT-CLASS-424-247	US-PATENT-4,287,838	NASA-CASE-NPO-14544-1
		US-PATENT-CLASS-424-267	NASA-CASE-LAR-12640-1	US-PATENT-APPL-SN-078612
N81-29780* #	c 52	US-PATENT-CLASS-424-274	US-PATENT-APPL-SN-092142	US-PATENT-CLASS-343-100ME
		US-PATENT-4,279,906	US-PATENT-CLASS-158-307.7	US-PATENT-CLASS-343-100PE
N81-29781* #	c 52	NASA-CASE-NPO-14448-1	US-PATENT-CLASS-158-307.3	US-PATENT-CLASS-343-781P
		US-PATENT-APPL-SN-037560	US-PATENT-CLASS-158-307.5	US-PATENT-4,282,525
N81-29782* #	c 52	US-PATENT-CLASS-356-345	US-PATENT-CLASS-156-331.5	NASA-CASE-MFS-25139-1
		US-PATENT-CLASS-356-346	US-PATENT-CLASS-528-126	US-PATENT-APPL-SN-126138
N81-29783* #	c 52	US-PATENT-4,278,351	US-PATENT-CLASS-528-172	US-PATENT-CLASS-239-499
		NASA-CASE-MSC-16239-1	US-PATENT-CLASS-528-173	US-PATENT-CLASS-239-589
N81-29784* #	c 52	US-PATENT-APPL-SN-847276	US-PATENT-CLASS-528-180	US-PATENT-CLASS-239-601
		US-PATENT-CLASS-91-325	US-PATENT-CLASS-528-207	US-PATENT-4,300,723
N81-29785* #	c 52	US-PATENT-CLASS-91-341R	US-PATENT-CLASS-528-208	NASA-CASE-LAR-12592-1
		US-PATENT-CLASS-91-410	US-PATENT-CLASS-528-210	US-PATENT-APPL-SN-041141
N81-29786* #	c 52	US-PATENT-4,283,895	US-PATENT-CLASS-528-211	US-PATENT-CLASS-331-94.5C
		NASA-CASE-MFS-23825-1	US-PATENT-CLASS-528-225	US-PATENT-CLASS-331-94.5D
N81-29787* #	c 52	US-PATENT-APPL-SN-145273	US-PATENT-CLASS-528-228	US-PATENT-CLASS-331-94.5P
		US-PATENT-CLASS-119-17	US-PATENT-CLASS-528-351	US-PATENT-4,300,106
N81-29788* #	c 52	US-PATENT-CLASS-119-18	US-PATENT-CLASS-528-353	NASA-CASE-GSC-12032-2
		US-PATENT-4,284,034	US-PATENT-4,284,461	US-PATENT-APPL-SN-578700
N81-29789* #	c 52	NASA-CASE-LAR-12065-2	NASA-CASE-GSC-12697-1	US-PATENT-APPL-SN-583219
		US-PATENT-APPL-SN-118337	US-PATENT-APPL-SN-308204	US-PATENT-CLASS-250-235
N81-29790* #	c 52	US-PATENT-APPL-SN-889671	NASA-CASE-MSC-18608-1	US-PATENT-CLASS-250-238
		US-PATENT-CLASS-156-242	US-PATENT-APPL-SN-145206	US-PATENT-CLASS-358-109
N81-29791* #	c 52	US-PATENT-CLASS-156-245	US-PATENT-CLASS-343-700MS	US-PATENT-4,300,159
		US-PATENT-CLASS-156-252	US-PATENT-CLASS-343-708	NASA-CASE-NPO-14839-1
N81-29792* #	c 52	US-PATENT-CLASS-156-264	US-PATENT-CLASS-343-727	US-PATENT-APPL-SN-106119
		US-PATENT-CLASS-156-285	US-PATENT-CLASS-343-795	US-PATENT-CLASS-343-100PE
N81-29793* #	c 52	US-PATENT-CLASS-156-290	US-PATENT-CLASS-343-848	US-PATENT-CLASS-455-137
		US-PATENT-4,229,473	US-PATENT-4,287,518	US-PATENT-CLASS-455-139
N81-29794* #	c 52	US-PATENT-4,274,901	NASA-CASE-MSC-18106-1	US-PATENT-CLASS-455-60
		NASA-CASE-NPO-14272-1	US-PATENT-APPL-SN-088568	US-PATENT-4,295,140
N81-29795* #	c 52	US-PATENT-CLASS-44-1R	US-PATENT-CLASS-335-256	NASA-CASE-ARC-10990-1
		US-PATENT-CLASS-44-2	US-PATENT-CLASS-335-266	US-PATENT-APPL-SN-749420
N81-29796* #	c 52	US-PATENT-4,146,387	US-PATENT-CLASS-361-141	US-PATENT-CLASS-244-114R
		NASA-CASE-NPO-14596-1	US-PATENT-4,295,111	US-PATENT-CLASS-340-26
N81-29797* #	c 52	US-PATENT-APPL-SN-037072	NASA-CASE-MFS-25588-1	US-PATENT-4,291,294
		US-PATENT-CLASS-264-24	US-PATENT-APPL-SN-310714	NASA-CASE-FRC-11005-1
N81-29798* #	c 52	US-PATENT-CLASS-264-5	NASA-CASE-LEW-12950-1	US-PATENT-APPL-SN-043942
		US-PATENT-CLASS-264-9	US-PATENT-APPL-SN-202228	US-PATENT-CLASS-340-27NA
N81-29799* #	c 52	US-PATENT-CLASS-425-6	NASA-CASE-LAR-12552-1	US-PATENT-CLASS-73-176R
		US-PATENT-CLASS-65-142	US-PATENT-APPL-SN-070366	US-PATENT-4,283,705
N81-29800* #	c 52	US-PATENT-CLASS-65-21.4	US-PATENT-CLASS-235-82PC	NASA-CASE-ARC-11244-1
		US-PATENT-CLASS-65-22	US-PATENT-CLASS-324-71CP	US-PATENT-APPL-SN-054501
N81-29801* #	c 52	US-PATENT-4,279,632	US-PATENT-4,286,209	US-PATENT-CLASS-260-340.9R
		NASA-CASE-GSC-12324-1	NASA-CASE-MFS-23250-1	US-PATENT-CLASS-568-445
N81-29802* #	c 52	US-PATENT-APPL-SN-945043	US-PATENT-APPL-SN-118340	US-PATENT-CLASS-568-497
		US-PATENT-CLASS-358-109	US-PATENT-CLASS-422-40	US-PATENT-4,277,402
N81-29803* #	c 52	US-PATENT-CLASS-358-213	US-PATENT-CLASS-430-17	NASA-CASE-MSC-18382-1
		US-PATENT-4,280,141	US-PATENT-CLASS-430-372	US-PATENT-APPL-SN-145107
N81-29804* #	c 52	NASA-CASE-NPO-14316-1	US-PATENT-4,287,152	US-PATENT-CLASS-106-18.16
			NASA-CASE-NPO-15539-1	US-PATENT-CLASS-106-18.24
			US-PATENT-APPL-SN-303670	US-PATENT-CLASS-260-45.7R
			NASA-CASE-NPO-13877-1	US-PATENT-CLASS-427-393.3

		US-PATENT-CLASS-428-263			US-PATENT-CLASS-244-110C			US-PATENT-CLASS-250-216
		US-PATENT-CLASS-428-264			US-PATENT-CLASS-280-805			US-PATENT-CLASS-250-235
		US-PATENT-CLASS-428-265			US-PATENT-CLASS-57-906			US-PATENT-4,320,290
		US-PATENT-CLASS-428-267			US-PATENT-4,304,320	N82-24205* #	c 08	NASA-CASE-LAR-12412-1
		US-PATENT-CLASS-428-272			NASA-CASE-MFS-25287-1			US-PATENT-APPL-SN-067585
		US-PATENT-4,284,682	N82-18688* #	c 44	US-PATENT-APPL-SN-088570			US-PATENT-CLASS-244-213
N82-18340* #	c 33	NASA-CASE-GSC-12420-1			US-PATENT-CLASS-128-422			US-PATENT-CLASS-244-226
		US-PATENT-APPL-SN-128793			US-PATENT-CLASS-128-429			US-PATENT-CLASS-244-78
		US-PATENT-CLASS-333-104			US-PATENT-CLASS-128-430			US-PATENT-CLASS-74-479
		US-PATENT-CLASS-333-246			US-PATENT-4,304,219			US-PATENT-CLASS-74-480R
		US-PATENT-4,302,734	N82-19029* #	c 74	NASA-CASE-NPO-15036-1	N82-24212* #	c 09	US-PATENT-4,272,046
N82-16396* #	c 36	NASA-CASE-GSC-12321-1			US-PATENT-APPL-SN-188160			NASA-CASE-ARC-11158-1
		US-PATENT-APPL-SN-102001			US-PATENT-CLASS-455-610			US-PATENT-APPL-SN-053566
		US-PATENT-CLASS-356-349			US-PATENT-CLASS-455-612			US-PATENT-CLASS-434-42
		US-PATENT-CLASS-356-386			US-PATENT-CLASS-455-615			US-PATENT-CLASS-434-43
		US-PATENT-4,299,492			US-PATENT-CLASS-455-617			US-PATENT-4,313,726
N82-18408* #	c 37	NASA-CASE-MSC-18422-1			US-PATENT-4,287,806	N82-24272* #	c 15	NASA-CASE-ARC-11256-1
		US-PATENT-APPL-SN-102593	N82-19030* #	c 74	NASA-CASE-LAR-12443-1			US-PATENT-APPL-SN-032305
		US-PATENT-CLASS-244-113			US-PATENT-APPL-SN-315582			US-PATENT-CLASS-102-504
		US-PATENT-CLASS-244-163	N82-19540* #	c 37	NASA-CASE-LEW-12131-3			US-PATENT-CLASS-242-128
		US-PATENT-CLASS-244-217			US-PATENT-APPL-SN-098255			US-PATENT-4,271,761
		US-PATENT-CLASS-277-189			US-PATENT-APPL-SN-801290	N82-24296* #	c 24	NASA-CASE-FRC-11026-1
		US-PATENT-CLASS-277-81R			US-PATENT-APPL-SN-931090			US-PATENT-APPL-SN-043944
		US-PATENT-CLASS-418-113			US-PATENT-CLASS-415-174			US-PATENT-CLASS-228-157
		US-PATENT-CLASS-418-142			US-PATENT-CLASS-415-196			US-PATENT-CLASS-244-119
		US-PATENT-4,290,612			US-PATENT-4,135,851			US-PATENT-CLASS-244-123
N82-18474* #	c 44	NASA-CASE-MFS-23775-1			US-PATENT-4,207,024			US-PATENT-CLASS-428-593
		US-PATENT-APPL-SN-098569			US-PATENT-4,285,786			US-PATENT-CLASS-428-584
		US-PATENT-CLASS-73-341	N82-20398* #	c 33	NASA-CASE-GSC-12442-1			US-PATENT-CLASS-428-604
		US-PATENT-4,282,752			US-PATENT-APPL-SN-327659			US-PATENT-4,292,375
N82-16475* #	c 44	NASA-CASE-NPO-15071-1	N82-20544* #	c 37	NASA-CASE-LAR-12801-1	N82-24312* #	c 25	NASA-CASE-ARC-11097-1
		US-PATENT-APPL-SN-150115			US-PATENT-APPL-SN-309291			US-PATENT-APPL-SN-891872
		US-PATENT-CLASS-126-438			NASA-CASE-LEW-12358-2			US-PATENT-CLASS-260-386
		US-PATENT-CLASS-250-527	N82-21268* #	c 25	US-PATENT-APPL-SN-778146			US-PATENT-CLASS-260-389
		US-PATENT-CLASS-48-89			US-PATENT-APPL-SN-848428			US-PATENT-CLASS-528-402
		US-PATENT-CLASS-48-99			US-PATENT-CLASS-264-216			US-PATENT-CLASS-570-123
		US-PATENT-4,290,779			US-PATENT-CLASS-264-453			US-PATENT-CLASS-570-129
N82-16747* #	c 60	NASA-CASE-GSC-12430-1			US-PATENT-CLASS-264-53			US-PATENT-4,307,024
		US-PATENT-APPL-SN-129779			US-PATENT-CLASS-427-115	N82-24338* #	c 27	NASA-CASE-ARC-11253-2
		US-PATENT-CLASS-370-100			US-PATENT-CLASS-427-244			US-PATENT-APPL-SN-028301
		US-PATENT-CLASS-375-106			US-PATENT-CLASS-427-246			US-PATENT-APPL-SN-145284
		US-PATENT-CLASS-375-114			US-PATENT-4,133,941			US-PATENT-CLASS-528-310
		US-PATENT-CLASS-375-116			US-PATENT-4,309,372			US-PATENT-CLASS-528-328
		US-PATENT-4,298,987	N82-21269* #	c 25	NASA-CASE-XLA-8914-2			US-PATENT-CLASS-528-362
N82-16800* #	c 71	NASA-CASE-FRC-11062-1			US-PATENT-APPL-SN-662181			US-PATENT-CLASS-528-401
		US-PATENT-APPL-SN-165669			US-PATENT-APPL-SN-810576			US-PATENT-CLASS-528-422
		US-PATENT-CLASS-181-214			US-PATENT-CLASS-210-321.1			US-PATENT-4,273,018
		US-PATENT-4,300,656			US-PATENT-CLASS-55-158	N82-24339* #	c 27	NASA-CASE-ARC-11310-1
N82-18314* #	c 20	NASA-CASE-GSC-12184-2			US-PATENT-4,302,223			US-PATENT-APPL-SN-147700
		US-PATENT-APPL-SN-819029	N82-21587* #	c 37	NASA-CASE-NPO-14395-1			US-PATENT-CLASS-102-289
		US-PATENT-APPL-SN-971474			US-PATENT-APPL-SN-961833			US-PATENT-CLASS-244-121
		US-PATENT-CLASS-60-200R			US-PATENT-CLASS-104-83			US-PATENT-CLASS-244-158A
		US-PATENT-CLASS-60-39.46M			US-PATENT-CLASS-105-1A			US-PATENT-CLASS-244-160
		US-PATENT-4,288,982			US-PATENT-CLASS-105-171			US-PATENT-CLASS-428-182
N82-18389* #	c 27	NASA-CASE-ARC-11176-1			US-PATENT-CLASS-105-180			US-PATENT-CLASS-428-193
		US-PATENT-APPL-SN-129799			US-PATENT-CLASS-105-218R			US-PATENT-CLASS-428-241
		US-PATENT-CLASS-528-188			US-PATENT-CLASS-248-425			US-PATENT-CLASS-428-242
		US-PATENT-CLASS-528-399			US-PATENT-4,301,740			US-PATENT-CLASS-428-245
		US-PATENT-CLASS-528-4	N82-22496* #	c 37	NASA-CASE-ARC-11325-1			US-PATENT-CLASS-428-251
		US-PATENT-CLASS-528-6			US-PATENT-APPL-SN-354126			US-PATENT-CLASS-428-257
		US-PATENT-CLASS-528-7	N82-22875* #	c 52	NASA-CASE-GSC-12081-2			US-PATENT-CLASS-428-260
		US-PATENT-CLASS-568-2			US-PATENT-APPL-SN-672209			US-PATENT-CLASS-428-266
		US-PATENT-CLASS-568-4			US-PATENT-APPL-SN-796258			US-PATENT-CLASS-428-447
		US-PATENT-CLASS-568-5			US-PATENT-CLASS-128-1.2			US-PATENT-CLASS-428-448
		US-PATENT-4,288,585			US-PATENT-CLASS-128-778			US-PATENT-CLASS-428-449
N82-18390* #	c 27	NASA-CASE-LAR-12868-1			US-PATENT-CLASS-33-143C			US-PATENT-4,308,309
		US-PATENT-APPL-SN-323231			US-PATENT-4,294,264	N82-24340* #	c 27	NASA-CASE-MFS-25181-1
N82-18401* #	c 28	NASA-CASE-ARC-11245-1	N82-23031* #	c 76	NASA-CASE-NPO-15772-1			US-PATENT-APPL-SN-218585
		US-PATENT-APPL-SN-088663			US-PATENT-APPL-SN-342944			US-PATENT-CLASS-156-315
		US-PATENT-CLASS-239-690	N82-23231* #	c 04	NASA-CASE-FRC-11052-1			US-PATENT-CLASS-156-338
		US-PATENT-CLASS-361-226			US-PATENT-APPL-SN-129783			US-PATENT-CLASS-428-332
		US-PATENT-CLASS-361-230			US-PATENT-CLASS-244-168			US-PATENT-CLASS-428-339
		US-PATENT-4,303,961			US-PATENT-CLASS-244-175			US-PATENT-CLASS-428-482
N82-18443* #	c 32	NASA-CASE-NPO-14632-1			US-PATENT-CLASS-244-190			US-PATENT-CLASS-428-486
		US-PATENT-APPL-SN-092143			US-PATENT-CLASS-318-580			US-PATENT-CLASS-428-493
		US-PATENT-CLASS-387-100			US-PATENT-4,326,685			US-PATENT-4,327,150
		US-PATENT-CLASS-387-102	N82-23254* #	c 09	NASA-CASE-LAR-12441-1	N82-24345* #	c 27	NASA-CASE-LAR-12540-2
		US-PATENT-CLASS-387-88			US-PATENT-APPL-SN-145210			US-PATENT-APPL-SN-333536
		US-PATENT-4,287,578			US-PATENT-CLASS-73-147	N82-24415* #	c 33	NASA-CASE-LEW-13282-1
N82-18493* #	c 33	NASA-CASE-FRC-11041-1			US-PATENT-4,327,581			US-PATENT-APPL-SN-073579
		US-PATENT-APPL-SN-126064			NASA-CASE-NPO-14542-1			US-PATENT-CLASS-315-3.6
		US-PATENT-CLASS-318-561	N82-23282* #	c 25	US-PATENT-APPL-SN-030831			US-PATENT-CLASS-315-5.38
		US-PATENT-CLASS-318-620			US-PATENT-CLASS-166-267			US-PATENT-4,277,721
		US-PATENT-CLASS-318-621			US-PATENT-CLASS-166-303	N82-24416* #	c 33	NASA-CASE-LAR-12633-1
		US-PATENT-CLASS-318-622			US-PATENT-CLASS-208-241			US-PATENT-APPL-SN-135039
		US-PATENT-4,298,833			US-PATENT-4,310,049			US-PATENT-CLASS-358-213
N82-18494* #	c 33	NASA-CASE-FRC-11014-1	N82-23376* #	c 32	NASA-CASE-NPO-14381-1			US-PATENT-4,279,001
		US-PATENT-APPL-SN-053652			US-PATENT-APPL-SN-053672	N82-24417* #	c 33	NASA-CASE-FRC-11025-1
		US-PATENT-CLASS-331-113R			US-PATENT-CLASS-343-17.1PF			US-PATENT-APPL-SN-115538
		US-PATENT-CLASS-383-132			US-PATENT-CLASS-343-5DP			US-PATENT-CLASS-328-167
		US-PATENT-CLASS-383-17			US-PATENT-CLASS-343-7.5			US-PATENT-CLASS-330-109
		US-PATENT-CLASS-383-61			US-PATENT-CLASS-358-5			US-PATENT-CLASS-330-290
		US-PATENT-4,298,826			US-PATENT-CLASS-387-65			US-PATENT-CLASS-330-294
N82-18601* #	c 37	NASA-CASE-LAR-12372-1			US-PATENT-4,320,397			US-PATENT-CLASS-330-306
		US-PATENT-APPL-SN-108107	N82-24072* #	c 74	NASA-CASE-NPO-14813-1			US-PATENT-CLASS-364-825
		US-PATENT-CLASS-188-371			US-PATENT-APPL-SN-145282			US-PATENT-4,275,453

N82-24418* #	c 33	NASA-CASE-NPO-14556-1 US-PATENT-APPL-SN-023485 US-PATENT-CLASS-307-415 US-PATENT-CLASS-328-67 US-PATENT-CLASS-331-94.5G US-PATENT-CLASS-331-94.5PE US-PATENT-CLASS-333-20 US-PATENT-CLASS-4,275,317	US-PATENT-CLASS-60-516 US-PATENT-CLASS-60-641.14 US-PATENT-CLASS-4,326,381	US-PATENT-CLASS-219-10.53 US-PATENT-CLASS-219-545 US-PATENT-CLASS-428-247 US-PATENT-CLASS-4,313,777
N82-24419* #	c 33	NASA-CASE-GSC-12415-1 US-PATENT-APPL-SN-043943 US-PATENT-CLASS-165-32 US-PATENT-CLASS-62-383 US-PATENT-CLASS-4,281,708	N82-24641* # c 44 NASA-CASE-GSC-10019-1 US-PATENT-APPL-SN-680048 US-PATENT-CLASS-136-6 US-PATENT-CLASS-3,498,841	N82-26572* # c 33 NASA-CASE-LAR-12465-1 US-PATENT-APPL-SN-106136 US-PATENT-CLASS-361-283 US-PATENT-CLASS-367-181 US-PATENT-CLASS-73-724 US-PATENT-CLASS-4,310,906
N82-24420* #	c 33	NASA-CASE-ARC-11116-1 US-PATENT-APPL-SN-069485 US-PATENT-CLASS-324-51 US-PATENT-CLASS-324-52 US-PATENT-CLASS-4,282,479	N82-24642* # c 44 NASA-CASE-GSC-10350-1 US-PATENT-APPL-SN-679980 US-PATENT-CLASS-136-6 US-PATENT-CLASS-3,498,840	N82-26573* # c 33 NASA-CASE-LAR-12893-1 US-PATENT-APPL-SN-364041 US-PATENT-CLASS-12474-1 US-PATENT-CLASS-352-171 US-PATENT-CLASS-354-217 US-PATENT-CLASS-354-289 US-PATENT-CLASS-4,311,378
N82-24421* #	c 33	NASA-CASE-GSC-12518-1 US-PATENT-APPL-SN-119336 US-PATENT-CLASS-310-12 US-PATENT-CLASS-318-135 US-PATENT-CLASS-335-229 US-PATENT-CLASS-335-266 US-PATENT-CLASS-4,315,197	N82-24643* # c 44 NASA-CASE-GSC-10017-1 US-PATENT-APPL-SN-679996 US-PATENT-CLASS-136-6 US-PATENT-CLASS-3,519,484	N82-26628* # c 35 NASA-CASE-LAR-12719-1 US-PATENT-APPL-SN-171934 US-PATENT-CLASS-352-171 US-PATENT-CLASS-354-217 US-PATENT-CLASS-354-289 US-PATENT-CLASS-4,311,378
N82-24422* #	c 33	NASA-CASE-GSC-12595-1 US-PATENT-APPL-SN-206506 US-PATENT-CLASS-336-120 US-PATENT-CLASS-336-83 US-PATENT-CLASS-4,321,572	N82-24644* # c 44 NASA-CASE-GSC-10018-1 US-PATENT-APPL-SN-679987 US-PATENT-CLASS-136-6 US-PATENT-CLASS-3,519,483	N82-26630* # c 35 NASA-CASE-NPO-15759-1 US-PATENT-APPL-SN-367136 US-PATENT-CLASS-MFS-25707-1 US-PATENT-APPL-SN-359627 US-PATENT-CLASS-MSC-18866-1 US-PATENT-APPL-SN-350471 US-PATENT-CLASS-MSC-18538-1 US-PATENT-APPL-SN-138944 US-PATENT-CLASS-30-102 US-PATENT-CLASS-4,305,205
N82-24427* #	c 33	NASA-CASE-MSC-18407-1 US-PATENT-APPL-SN-293419	N82-24645* # c 44 NASA-CASE-GSC-10349-1 US-PATENT-APPL-SN-658999 US-PATENT-CLASS-136-148 US-PATENT-CLASS-3,506,496	N82-26631* # c 35 NASA-CASE-MFS-25707-1 US-PATENT-APPL-SN-359627 US-PATENT-CLASS-MSC-18866-1 US-PATENT-APPL-SN-350471 US-PATENT-CLASS-MSC-18538-1 US-PATENT-APPL-SN-138944 US-PATENT-CLASS-30-102 US-PATENT-CLASS-4,305,205
N82-24470* #	c 35	NASA-CASE-LAR-12321-1 US-PATENT-APPL-SN-178195 US-PATENT-CLASS-29-613 US-PATENT-CLASS-338-25 US-PATENT-CLASS-338-275 US-PATENT-CLASS-338-28 US-PATENT-CLASS-4,317,102	N82-24779* # c 47 NASA-CASE-KSC-11099-1 US-PATENT-APPL-SN-043945 US-PATENT-CLASS-324-72 US-PATENT-CLASS-324-77R US-PATENT-CLASS-4,272,720	N82-26673* # c 37 NASA-CASE-MSC-18742-1 US-PATENT-APPL-SN-293417 US-PATENT-CLASS-MSC-18742-1 US-PATENT-APPL-SN-293417 US-PATENT-CLASS-MSC-18742-1 US-PATENT-APPL-SN-293417
N82-24471* #	c 35	NASA-CASE-GSC-12354-1 US-PATENT-APPL-SN-128229 US-PATENT-CLASS-250-385 US-PATENT-CLASS-250-386 US-PATENT-CLASS-250-389 US-PATENT-CLASS-29-25.14 US-PATENT-CLASS-313-348 US-PATENT-CLASS-313-93 US-PATENT-CLASS-4,325,001	N82-24839* # c 60 NASA-CASE-FRC-11042-1 US-PATENT-APPL-SN-129778 US-PATENT-CLASS-254-131 US-PATENT-CLASS-29-267 US-PATENT-CLASS-29-764 US-PATENT-CLASS-4,307,510	N82-26674* # c 37 NASA-CASE-LEW-13268-2 US-PATENT-APPL-SN-325931 US-PATENT-CLASS-LAR-12729-1 US-PATENT-APPL-SN-371353 US-PATENT-CLASS-NPO-15183-1 US-PATENT-APPL-SN-173519 US-PATENT-CLASS-62-148 US-PATENT-CLASS-62-235.1 US-PATENT-CLASS-62-238.3 US-PATENT-CLASS-62-239 US-PATENT-CLASS-62-244 US-PATENT-CLASS-62-478 US-PATENT-CLASS-4,307,575
N82-24490* #	c 37	NASA-CASE-LAR-12315-1 US-PATENT-APPL-SN-096257 US-PATENT-CLASS-220-378 US-PATENT-CLASS-277-1 US-PATENT-CLASS-277-105 US-PATENT-CLASS-277-2 US-PATENT-CLASS-277-204 US-PATENT-CLASS-277-4 US-PATENT-CLASS-277-59 US-PATENT-CLASS-277-72R US-PATENT-CLASS-285-37 US-PATENT-CLASS-4,309,039	N82-25440* # c 33 NASA-CASE-NPO-14410-2 US-PATENT-APPL-SN-272838 US-PATENT-CLASS-NPO-15494-1 US-PATENT-APPL-SN-325885 US-PATENT-CLASS-FRC-11007-2 US-PATENT-APPL-SN-043911 US-PATENT-CLASS-244-12.2 US-PATENT-CLASS-244-23C US-PATENT-CLASS-244-34A US-PATENT-CLASS-244-93 US-PATENT-CLASS-4,307,856	N82-26777* # c 44 NASA-CASE-NPO-15179-1 US-PATENT-APPL-SN-185867 US-PATENT-CLASS-136-261 US-PATENT-CLASS-136-290 US-PATENT-CLASS-148-1.5 US-PATENT-CLASS-219-121N US-PATENT-CLASS-357-30 US-PATENT-CLASS-357-63 US-PATENT-CLASS-4,311,870
N82-24491* #	c 37	NASA-CASE-MSC-18430-1 US-PATENT-APPL-SN-113015 US-PATENT-CLASS-156-84 US-PATENT-CLASS-156-85 US-PATENT-CLASS-156-86 US-PATENT-CLASS-284-230 US-PATENT-CLASS-264-342R US-PATENT-CLASS-4,269,640	N82-25484* # c 35 NASA-CASE-NPO-15494-1 US-PATENT-APPL-SN-325885 US-PATENT-CLASS-FRC-11007-2 US-PATENT-APPL-SN-043911 US-PATENT-CLASS-244-12.2 US-PATENT-CLASS-244-23C US-PATENT-CLASS-244-34A US-PATENT-CLASS-244-93 US-PATENT-CLASS-4,307,856	N82-26780* # c 44 NASA-CASE-MFS-25637-1 US-PATENT-APPL-SN-375684 US-PATENT-CLASS-NPO-15430-1 US-PATENT-CLASS-NPO-15437-1 US-PATENT-APPL-SN-322317 US-PATENT-CLASS-ARC-11314-1 US-PATENT-APPL-SN-168943 US-PATENT-CLASS-73-862.08 US-PATENT-CLASS-4,311,055
N82-24492* #	c 37	NASA-CASE-ARC-11110-1 US-PATENT-APPL-SN-945040 US-PATENT-CLASS-118-320 US-PATENT-CLASS-118-500 US-PATENT-CLASS-118-503 US-PATENT-CLASS-118-505 US-PATENT-CLASS-427-425 US-PATENT-CLASS-4,312,292	N82-26277* # c 05 NASA-CASE-FRC-11007-2 US-PATENT-APPL-SN-043911 US-PATENT-CLASS-244-12.2 US-PATENT-CLASS-244-23C US-PATENT-CLASS-244-34A US-PATENT-CLASS-244-93 US-PATENT-CLASS-4,307,856	N82-27086* # c 71 NASA-CASE-NPO-15582-1 US-PATENT-APPL-SN-364097 US-PATENT-CLASS-NPO-15468-1 US-PATENT-APPL-SN-361217 US-PATENT-CLASS-MSC-18578-1 US-PATENT-APPL-SN-367132 US-PATENT-CLASS-MSC-18532-1 US-PATENT-APPL-SN-172099 US-PATENT-CLASS-343-789 US-PATENT-CLASS-343-895 US-PATENT-CLASS-4,315,266
N82-24493* #	c 37	NASA-CASE-NPO-15115-1 US-PATENT-APPL-SN-154725 US-PATENT-CLASS-74-18.1 US-PATENT-CLASS-74-18.2 US-PATENT-CLASS-92-37 US-PATENT-CLASS-4,311,057	N82-26293* # c 07 NASA-CASE-LEW-13199-1 US-PATENT-APPL-SN-025301 US-PATENT-CLASS-244-1108 US-PATENT-CLASS-60-226A US-PATENT-CLASS-4,278,220	N82-27087* # c 71 NASA-CASE-NPO-15468-1 US-PATENT-APPL-SN-361217 US-PATENT-CLASS-MSC-18578-1 US-PATENT-APPL-SN-367132 US-PATENT-CLASS-MSC-18532-1 US-PATENT-APPL-SN-172099 US-PATENT-CLASS-343-789 US-PATENT-CLASS-343-895 US-PATENT-CLASS-4,315,266
N82-24494* #	c 37	NASA-CASE-MSC-18526-1 US-PATENT-APPL-SN-119335 US-PATENT-CLASS-285-159 US-PATENT-CLASS-285-401 US-PATENT-CLASS-285-89 US-PATENT-CLASS-403-315 US-PATENT-CLASS-4,320,911	N82-26384* # c 24 NASA-CASE-LAR-11688-1 US-PATENT-APPL-SN-878540 US-PATENT-CLASS-244-119 US-PATENT-CLASS-244-123 US-PATENT-CLASS-244-132 US-PATENT-CLASS-4,310,132	N82-27121* # c 74 NASA-CASE-MSC-18578-1 US-PATENT-APPL-SN-367132 US-PATENT-CLASS-MSC-18532-1 US-PATENT-APPL-SN-172099 US-PATENT-CLASS-343-789 US-PATENT-CLASS-343-895 US-PATENT-CLASS-4,315,266
N82-24639* #	c 44	NASA-CASE-MFS-23830-1 US-PATENT-APPL-SN-129780 US-PATENT-CLASS-415-DIG.8 US-PATENT-CLASS-415-2R US-PATENT-CLASS-4,309,146	N82-26385* # c 24 NASA-CASE-LEW-13826-1 US-PATENT-APPL-SN-371354 US-PATENT-CLASS-MSC-18934-3 US-PATENT-APPL-SN-361711 US-PATENT-CLASS-MSC-18796-1 US-PATENT-APPL-SN-367121 US-PATENT-CLASS-LAR-12705-1 US-PATENT-APPL-SN-135058 US-PATENT-CLASS-252-514 US-PATENT-CLASS-4,311,615	N82-28353* # c 23 NASA-CASE-ARC-11267-2 US-PATENT-APPL-SN-163838 US-PATENT-CLASS-528-401 US-PATENT-CLASS-528-422 US-PATENT-CLASS-547-131 US-PATENT-CLASS-564-229 US-PATENT-CLASS-4,316,035
N82-24640* #	c 44	NASA-CASE-LAR-12148-1 US-PATENT-APPL-SN-051275	N82-26387* # c 24 NASA-CASE-MSC-18934-3 US-PATENT-APPL-SN-361711 US-PATENT-CLASS-MSC-18796-1 US-PATENT-APPL-SN-367121 US-PATENT-CLASS-LAR-12705-1 US-PATENT-APPL-SN-135058 US-PATENT-CLASS-252-514 US-PATENT-CLASS-4,311,615	N82-28368* # c 25 NASA-CASE-NPO-15015-1 US-PATENT-APPL-SN-145207 US-PATENT-CLASS-203-12 US-PATENT-CLASS-422-186 US-PATENT-CLASS-422-198 US-PATENT-CLASS-423-235 US-PATENT-CLASS-423-539 US-PATENT-CLASS-423-540 US-PATENT-CLASS-423-542 US-PATENT-CLASS-423-579 US-PATENT-CLASS-423-648R US-PATENT-CLASS-4,314,984



		US-PATENT-APPL-SN-218567			US-PATENT-CLASS-128-283	N82-29606* #	c 37	NASA-CASE-LAR-12864-1
		US-PATENT-CLASS-204-192E			US-PATENT-CLASS-128-284			US-PATENT-APPL-SN-387846
		US-PATENT-CLASS-204-192EC			US-PATENT-CLASS-128-285	N82-29708* #	c 44	NASA-CASE-LEW-13171-1
		US-PATENT-CLASS-264-22			US-PATENT-CLASS-128-288			US-PATENT-APPL-SN-238790
		US-PATENT-CLASS-264-220			US-PATENT-CLASS-128-291			US-PATENT-CLASS-428-144
		US-PATENT-CLASS-428-141			US-PATENT-CLASS-128-296			US-PATENT-CLASS-428-251
		US-PATENT-4,329,385			US-PATENT-CLASS-428-283			US-PATENT-CLASS-428-254
N82-28441* #	c 27	NASA-CASE-LEW-13343-1			US-PATENT-CLASS-428-284			US-PATENT-4,331,746
		US-PATENT-APPL-SN-161254			US-PATENT-CLASS-428-288	N82-29709* #	c 44	NASA-CASE-LEW-13401-1
		US-PATENT-CLASS-427-205			US-PATENT-CLASS-428-287			US-PATENT-APPL-SN-219878
		US-PATENT-CLASS-427-253			US-PATENT-CLASS-428-287			US-PATENT-CLASS-136-249
		US-PATENT-CLASS-427-405			US-PATENT-CLASS-428-288			US-PATENT-CLASS-148-1.5
		US-PATENT-CLASS-428-938			US-PATENT-4,338,371			US-PATENT-CLASS-28-572
		US-PATENT-CLASS-428-941	N82-29370* #	c 25	NASA-CASE-XGS-05584-1			US-PATENT-CLASS-357-30
		US-PATENT-4,310,574			NASA-CASE-XGS-07375-1			US-PATENT-4,335,503
N82-28442* #	c 27	NASA-CASE-NPO-14845-1			NASA-CASE-XGS-07397-1	N82-29710* #	c 44	NASA-CASE-NPO-15269-1
		US-PATENT-APPL-SN-219680			US-PATENT-APPL-SN-446071			US-PATENT-APPL-SN-220214
		US-PATENT-CLASS-264-5			US-PATENT-CLASS-106-197			US-PATENT-CLASS-204-290F
		US-PATENT-CLASS-425-6			US-PATENT-3,442,674			US-PATENT-CLASS-204-290R
		US-PATENT-CLASS-65-142	N82-29371* #	c 25	NASA-CASE-NPO-14902-1			US-PATENT-CLASS-429-193
		US-PATENT-CLASS-65-21.4			US-PATENT-APPL-SN-156790			US-PATENT-CLASS-429-33
		US-PATENT-CLASS-65-22			US-PATENT-CLASS-201-17			US-PATENT-CLASS-429-40
		US-PATENT-4,313,745			US-PATENT-CLASS-44-1SR			US-PATENT-4,331,742
N82-28502* #	c 32	NASA-CASE-NPO-15704-1			US-PATENT-3,325,707	N82-29862* #	c 52	NASA-CASE-LAR-12471-1
		US-PATENT-APPL-SN-359382	N82-29415* #	c 26	NASA-CASE-LEW-13169-1			US-PATENT-APPL-SN-178193
N82-28545* #	c 33	NASA-CASE-MFS-23776-1			US-PATENT-APPL-SN-102003			US-PATENT-CLASS-128-62A
		US-PATENT-APPL-SN-145272			US-PATENT-CLASS-204-192C			US-PATENT-CLASS-433-118
		US-PATENT-CLASS-250-214			US-PATENT-4,338,117			US-PATENT-CLASS-433-125
		US-PATENT-CLASS-250-221	N82-29451* #	c 27	NASA-CASE-HQN-10274-1			US-PATENT-CLASS-433-88
		US-PATENT-4,319,133			US-PATENT-APPL-SN-683465			US-PATENT-4,331,422
N82-28549* #	c 33	NASA-CASE-MSC-20181-1			US-PATENT-CLASS-106-52	N82-29863* #	c 52	NASA-CASE-GSC-12560-1
		US-PATENT-APPL-SN-392093			US-PATENT-3,573,078			US-PATENT-APPL-SN-153246
N82-28604* #	c 35	NASA-CASE-LAR-12709-1	N82-29452* #	c 27	NASA-CASE-HQN-10931-2			US-PATENT-CLASS-128-421
		US-PATENT-APPL-SN-235796			US-PATENT-APPL-SN-246295			US-PATENT-4,308,866
		US-PATENT-CLASS-204-195B			US-PATENT-APPL-SN-874874	N82-30071* #	c 74	NASA-CASE-MSC-18627-1
		US-PATENT-CLASS-435-291			US-PATENT-CLASS-106-50			US-PATENT-APPL-SN-186861
		US-PATENT-CLASS-435-34			US-PATENT-CLASS-106-52			US-PATENT-CLASS-250-226
		US-PATENT-CLASS-435-39			US-PATENT-CLASS-106-54			US-PATENT-CLASS-250-231R
		US-PATENT-4,335,206			US-PATENT-3,785,836			US-PATENT-CLASS-374-162R
N82-28616* #	c 36	NASA-CASE-NPO-14782-1	N82-29453* #	c 27	NASA-CASE-LEW-13268-1			US-PATENT-4,338,516
		US-PATENT-APPL-SN-119339			US-PATENT-APPL-SN-145209	N82-30105* #	c 76	NASA-CASE-NPO-14831-1
		US-PATENT-CLASS-330-4.3			US-PATENT-CLASS-415-174			US-PATENT-APPL-SN-233269
		US-PATENT-CLASS-372-56			US-PATENT-CLASS-427-34			US-PATENT-CLASS-156-602
		US-PATENT-CLASS-372-58			US-PATENT-CLASS-427-423			US-PATENT-CLASS-156-608
		US-PATENT-CLASS-372-82			US-PATENT-4,336,276			US-PATENT-CLASS-422-248
		US-PATENT-4,328,464	N82-29454* #	c 27	NASA-CASE-HQN-10328-2			US-PATENT-4,330,359
N82-28618* #	c 36	NASA-CASE-NPO-15980-1			US-PATENT-APPL-SN-246294	N82-30371* #	c 26	NASA-CASE-LEW-13169-2
		US-PATENT-APPL-SN-385220			US-PATENT-APPL-SN-874673			US-PATENT-APPL-SN-102003
N82-28619* #	c 36	NASA-CASE-NPO-15696-1			US-PATENT-CLASS-106-50			US-PATENT-APPL-SN-191746
		US-PATENT-APPL-SN-387647			US-PATENT-CLASS-106-54			US-PATENT-CLASS-204-192C
N82-28640* #	c 37	NASA-CASE-MSC-18852-1			US-PATENT-3,811,901			US-PATENT-CLASS-428-457
		US-PATENT-APPL-SN-392094	N82-29455* #	c 27	NASA-CASE-HQN-10595-1			US-PATENT-CLASS-428-472
N82-28641* #	c 37	NASA-CASE-MSC-20112-1			US-PATENT-APPL-SN-259056			US-PATENT-4,341,843
		US-PATENT-APPL-SN-392104			US-PATENT-APPL-SN-874675	N82-31398* #	c 16	NASA-CASE-MFS-25837
N82-28642* #	c 37	NASA-CASE-NPO-15483-1			US-PATENT-CLASS-106-50			US-PATENT-APPL-SN-401282
		US-PATENT-APPL-SN-387648			US-PATENT-CLASS-106-52	N82-31505* #	c 26	NASA-CASE-LEW-13339-1
N82-28780* #	c 44	NASA-CASE-NPO-13689-4			US-PATENT-3,947,281			US-PATENT-APPL-SN-199769
		US-PATENT-APPL-SN-225501			US-PATENT-18741-1			US-PATENT-CLASS-148-428
		US-PATENT-APPL-SN-597430	N82-29456* #	c 27	NASA-CASE-MSC-18741-1			US-PATENT-CLASS-420-445
		US-PATENT-APPL-SN-683073			US-PATENT-APPL-SN-217336			US-PATENT-CLASS-420-551
		US-PATENT-APPL-SN-837513			US-PATENT-CLASS-156-329			US-PATENT-CLASS-420-588
		US-PATENT-APPL-SN-93714			US-PATENT-CLASS-244-121			US-PATENT-4,340,425
		US-PATENT-CLASS-148-175			US-PATENT-CLASS-244-158A	N82-31583* #	c 32	NASA-CASE-MSC-16482-1
		US-PATENT-CLASS-29-572			US-PATENT-CLASS-244-160			US-PATENT-APPL-SN-900841
		US-PATENT-CLASS-427-531			US-PATENT-CLASS-244-163			US-PATENT-CLASS-178-22.16
		US-PATENT-CLASS-427-74			US-PATENT-CLASS-428-212			US-PATENT-CLASS-178-22.17
		US-PATENT-4,278,830			US-PATENT-CLASS-428-218			US-PATENT-CLASS-364-717
		US-PATENT-4,321,099			US-PATENT-CLASS-428-283			US-PATENT-CLASS-375-106
N82-29002* #	c 54	NASA-CASE-XMS-03694-1			US-PATENT-CLASS-428-289			US-PATENT-4,341,925
		US-PATENT-APPL-SN-394280			US-PATENT-CLASS-428-307.7	N82-31659* #	c 35	NASA-CASE-LAR-12363-1
		US-PATENT-CLASS-165-46			US-PATENT-CLASS-428-311.5			US-PATENT-APPL-SN-191748
		US-PATENT-3,295,594			US-PATENT-CLASS-428-312.6			US-PATENT-CLASS-250-332
N82-29013* #	c 60	NASA-CASE-MSC-18498-1			US-PATENT-CLASS-428-317.9			US-PATENT-CLASS-250-370
		US-PATENT-APPL-SN-173518			US-PATENT-CLASS-428-325			US-PATENT-CLASS-29-576R
		US-PATENT-CLASS-244-194			US-PATENT-CLASS-428-446			US-PATENT-CLASS-29-576S
		US-PATENT-CLASS-318-564			US-PATENT-CLASS-428-49			US-PATENT-CLASS-29-620
		US-PATENT-CLASS-371-68			US-PATENT-4,338,368			US-PATENT-4,341,012
		US-PATENT-4,327,437	N82-29538* #	c 33	NASA-CASE-NPO-15066-1	N82-31688* #	c 37	NASA-CASE-MSC-20080-1
N82-29112* #	c 71	NASA-CASE-NPO-15559-1			US-PATENT-APPL-SN-191744			US-PATENT-APPL-SN-393584
		US-PATENT-APPL-SN-379601			US-PATENT-CLASS-179-186F	N82-31689* #	c 37	NASA-CASE-MSC-20319-1
N82-29330* #	c 09	NASA-CASE-KSC-11042-1			US-PATENT-CLASS-340-825.89			US-PATENT-APPL-SN-393582
		US-PATENT-APPL-SN-154683			US-PATENT-CLASS-370-87	N82-31690* #	c 37	NASA-CASE-MSC-20304-1
		US-PATENT-APPL-SN-862878			US-PATENT-4,331,956			US-PATENT-APPL-SN-393585
		US-PATENT-CLASS-53-429	N82-29539* #	c 33	NASA-CASE-NPO-14311-1	N82-31764* #	c 44	NASA-CASE-LEW-13400-1
		US-PATENT-CLASS-8-150			US-PATENT-APPL-SN-969762			US-PATENT-APPL-SN-219677
		US-PATENT-4,244,810			US-PATENT-CLASS-326-166			US-PATENT-CLASS-136-249
		US-PATENT-4,313,291			US-PATENT-CLASS-455-202			US-PATENT-CLASS-357-30
N82-29331* #	c 09	NASA-CASE-KSC-11218-1			US-PATENT-CLASS-455-208			US-PATENT-4,341,918
		US-PATENT-APPL-SN-387649			US-PATENT-CLASS-455-234	N82-32366* #	c 07	NASA-CASE-LEW-12938-1
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			US-PATENT-APPL-SN-061822				US-PATENT-CLASS-244-173	N83-25789* #	c 24		NASA-CASE-ARC-11261-1
			US-PATENT-CLASS-250-227				US-PATENT-CLASS-322-2R				US-PATENT-APPL-SN-282129
			US-PATENT-CLASS-250-332				US-PATENT-CLASS-339-3R				US-PATENT-CLASS-423-447.2
			US-PATENT-CLASS-250-340				US-PATENT-CLASS-339-5R				US-PATENT-CLASS-423-447.6
			US-PATENT-CLASS-250-350				US-PATENT-CLASS-343-DIG2				US-PATENT-CLASS-423-447.7
			US-PATENT-CLASS-250-351				US-PATENT-4.377.266				US-PATENT-4.385.043
			US-PATENT-CLASS-350-353	N83-20995* #	c 17		NASA-CASE-LAR-13006-1	N83-25791* #	c 24		NASA-CASE-ARC-11427-1
			US-PATENT-4.262.198				US-PATENT-APPL-SN-470113				US-PATENT-APPL-SN-493085
N83-19715* #	c 02		NASA-CASE-LAR-12625-1	N83-20996* #	c 18		NASA-CASE-LEW-13269-1	N83-25811* #	c 25		NASA-CASE-MFS-25721-1
			US-PATENT-APPL-SN-456915				US-PATENT-APPL-SN-242795				US-PATENT-APPL-SN-492963
N83-19737* #	c 05		NASA-CASE-FRC-11065-1				US-PATENT-CLASS-415-174	N83-25983* #	c 33		NASA-CASE-LEW-13833-1
			US-PATENT-APPL-SN-248744				US-PATENT-CLASS-415-197				US-PATENT-APPL-SN-486471
			US-PATENT-CASE-244-121				US-PATENT-4.377.371	N83-25984* #	c 33		NASA-CASE-LEW-13981-1
			US-PATENT-CASE-244-129.4	N83-21238* #	c 33		NASA-CASE-ARC-11367-1				US-PATENT-APPL-SN-492522
			US-PATENT-CASE-292-254				US-PATENT-APPL-SN-460511	N83-26078* #	c 37		NASA-CASE-GSC-12643-1
			US-PATENT-4.375.281	N83-21311* #	c 35		NASA-CASE-LAR-12469-1				US-PATENT-APPL-SN-238786
N83-19826* #	c 25		NASA-CASE-NPO-14565-2				US-PATENT-APPL-SN-195223				US-PATENT-CLASS-417-15
			US-PATENT-APPL-SN-408266				US-PATENT-CLASS-250-338				US-PATENT-CLASS-47-26
N83-19890* #	c 26		NASA-CASE-NPO-15658-1				US-PATENT-CLASS-250-372				US-PATENT-4.381.174
			US-PATENT-APPL-SN-451896				US-PATENT-CLASS-250-474-1	N83-26080* #	c 37		NASA-CASE-MFS-25842-1
N83-19900* #	c 27		NASA-CASE-NPO-14857-1				US-PATENT-CLASS-356-51				US-PATENT-APPL-SN-489902
			US-PATENT-APPL-SN-158530				US-PATENT-4.372.680	N83-26258* #	c 44		NASA-CASE-LEW-13827-1
			US-PATENT-CLASS-523-205	N83-21312* #	c 35		NASA-CASE-MSC-18723-1				US-PATENT-APPL-SN-486470
			US-PATENT-CLASS-524-436				US-PATENT-APPL-SN-231223	N83-27058* #	c 31		NASA-CASE-GSC-12636-1
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			US-PATENT-CLASS-524-503				US-PATENT-4.377.089				US-PATENT-CLASS-125-20
			US-PATENT-CLASS-524-564	N83-21316* #	c 35		NASA-CASE-MFS-25833-1				US-PATENT-CLASS-408-1R
			US-PATENT-CLASS-524-786				US-PATENT-APPL-SN-473827				US-PATENT-CLASS-408-61
			US-PATENT-4.373.039	N83-21503* #	c 44		NASA-CASE-LAR-12458-1				US-PATENT-CLASS-409-131
N83-19903* #	c 27		NASA-CASE-MFS-25862-1				US-PATENT-APPL-SN-274705				US-PATENT-4.383.785
			US-PATENT-APPL-SN-465366				US-PATENT-CLASS-73-147	N83-27085* #	c 32		NASA-CASE-NPO-15401-1
N83-19947* #	c 31		NASA-CASE-NPO-15789-1				US-PATENT-4.372.158				US-PATENT-APPL-SN-259210
			US-PATENT-APPL-SN-322316	N83-21504* #	c 44		NASA-CASE-LAR-12720-1				US-PATENT-CLASS-333-22F
			US-PATENT-CLASS-204-129.55				US-PATENT-APPL-SN-274706				US-PATENT-CLASS-333-254
			US-PATENT-CLASS-204-129.75				US-PATENT-CLASS-73-147				US-PATENT-4.382.239
			US-PATENT-4.375.396				US-PATENT-4.372.159	N83-27126* #	c 33		NASA-CASE-NPO-15358-1
N83-19968* #	c 32		NASA-CASE-NPO-14035-1				NASA-CASE-LEW-13107-1				US-PATENT-APPL-SN-219968
			US-PATENT-APPL-SN-858767				US-PATENT-APPL-SN-272407				US-PATENT-CLASS-323-269
			US-PATENT-CLASS-343-100CL				US-PATENT-CLASS-604-280				US-PATENT-CLASS-323-303
			US-PATENT-CLASS-343-5CM				US-PATENT-CLASS-604-8				US-PATENT-CLASS-323-350
			US-PATENT-CLASS-343-9PS				US-PATENT-4.377.169				US-PATENT-4.382.224
			US-PATENT-4.371.873	N83-21903* #	c 72		NASA-CASE-LEW-13881-1	N83-27144* #	c 34		NASA-CASE-LEW-13174-1
N83-19969* #	c 32		NASA-CASE-NPO-15743-1				US-PATENT-APPL-SN-473498				US-PATENT-APPL-SN-200634
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N83-19970* #	c 32		NASA-CASE-NPO-15899-1	N83-21949* #	c 74		US-PATENT-APPL-SN-282192				US-PATENT-CLASS-416-1
			US-PATENT-APPL-SN-457891				US-PATENT-CLASS-356-357				US-PATENT-CLASS-416-97R
N83-20083* #	c 35		NASA-CASE-GSC-12851-1				US-PATENT-CLASS-73-147				US-PATENT-4.384.823
			US-PATENT-APPL-SN-459842				US-PATENT-4.377.343	N83-27184* #	c 35		NASA-CASE-NPO-15292-1
N83-20084* #	c 35		NASA-CASE-NPO-15722-1				US-PATENT-APPL-SN-473499				US-PATENT-APPL-SN-207135
			US-PATENT-APPL-SN-457992				NASA-CASE-MFS-25752-1				US-PATENT-CLASS-250-282
N83-20085* #	c 35		NASA-CASE-GSC-12795-1	N83-21993* #	c 76		NASA-CASE-NPO-15904-1				US-PATENT-CLASS-250-288
			US-PATENT-APPL-SN-462508				US-PATENT-APPL-SN-465369				US-PATENT-CLASS-250-423
N83-20152* #	c 37		NASA-CASE-ARC-11414-1				NASA-CASE-NPO-16135-1				US-PATENT-4.383.171
			US-PATENT-APPL-SN-461714	N83-24572* #	c 25		US-PATENT-APPL-SN-470114	N83-27344* #	c 44		NASA-CASE-LEW-13246-1
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			US-PATENT-APPL-SN-461724	N83-24639* #	c 26		US-PATENT-APPL-SN-478131				US-PATENT-CLASS-429-105
N83-20154* #	c 37		NASA-CASE-MFS-25807				NASA-CASE-LAR-12363-2				US-PATENT-CLASS-429-107
			US-PATENT-APPL-SN-460733	N83-24763* #	c 33		US-PATENT-APPL-SN-377892				US-PATENT-CLASS-429-109
N83-20155* #	c 37		NASA-CASE-NPO-15949-1				US-PATENT-CLASS-250-388				US-PATENT-CLASS-429-34
			US-PATENT-APPL-SN-457890				US-PATENT-4.379.970				US-PATENT-4.382.116
N83-20156* #	c 37		NASA-CASE-LAR-12875-1	N83-24769* #	c 33		NASA-CASE-NPO-16021-1	N83-27569* #	c 51		NASA-CASE-GSC-12158-1
			US-PATENT-APPL-SN-469865				US-PATENT-APPL-SN-402205				US-PATENT-APPL-SN-888434
N83-20157* #	c 37		NASA-CASE-NPO-16038-1	N83-24828* #	c 35		NASA-CASE-MFS-25509-1				US-PATENT-CLASS-422-52
			US-PATENT-APPL-SN-469864				US-PATENT-APPL-SN-297486				US-PATENT-CLASS-435-289
N83-20280* #	c 39		NASA-CASE-MSC-18929-1				US-PATENT-CLASS-158-DIG.62				US-PATENT-CLASS-435-291
			US-PATENT-APPL-SN-198093				US-PATENT-CLASS-34-57A				

				US-PATENT-CLASS-435-3				US-PATENT-4,391,423				US-PATENT-APPL-SN-293418
				US-PATENT-CLASS-435-34		N83-29324* #	c 25	NASA-CASE-GSC-12770-1				US-PATENT-CLASS-427-318
				US-PATENT-CLASS-435-38				US-PATENT-APPL-SN-301075				US-PATENT-CLASS-427-419.2
				US-PATENT-CLASS-435-39				US-PATENT-CLASS-423-648R				US-PATENT-CLASS-428-450
				US-PATENT-CLASS-435-6				US-PATENT-CLASS-423-649				US-PATENT-CLASS-428-469
				US-PATENT-4,385,113				US-PATENT-4,393,039				US-PATENT-CLASS-428-641
N83-27577* #	c 52			NASA-CASE-MSC-18761-1		N83-29325* #	c 25	NASA-CASE-MSC-20206-1				US-PATENT-CLASS-428-650
				US-PATENT-APPL-SN-254588				US-PATENT-APPL-SN-478129				US-PATENT-CLASS-428-680
				US-PATENT-CLASS-128-DIG.13		N83-29388* #	c 27	NASA-CASE-LEW-13132-1				US-PATENT-4,374,183
				US-PATENT-CLASS-604-114				US-PATENT-APPL-SN-272152		N83-31854* #	c 27	NASA-CASE-ARC-11368-1
				US-PATENT-CLASS-604-151				US-PATENT-CLASS-204-35N				US-PATENT-APPL-SN-288267
				US-PATENT-CLASS-73-204				US-PATENT-CLASS-204-37R				US-PATENT-CLASS-548-413
				US-PATENT-4,384,578				US-PATENT-CLASS-204-56R				US-PATENT-CLASS-548-415
N83-27578* #	c 52			NASA-CASE-MSC-18759-1		N83-29390* #	c 27	US-PATENT-4,392,820		N83-31855* #	c 27	US-PATENT-4,395,557
				US-PATENT-APPL-SN-233270				NASA-CASE-LAR-12775				NASA-CASE-LEW-1335901
				US-PATENT-CLASS-128-660				US-PATENT-APPL-SN-461788				US-PATENT-APPL-SN-229233
				US-PATENT-CLASS-128-663		N83-29391* #	c 27	NASA-CASE-LAR-12858-2				US-PATENT-APPL-SN-195226
				US-PATENT-CLASS-73-597				US-PATENT-APPL-SN-492282				US-PATENT-CLASS-427-34
				US-PATENT-4,383,533		N83-29392* #	c 27	NASA-CASE-LEW-12876-2				US-PATENT-CLASS-427-405
N83-27875* #	c 05			NASA-CASE-FRC-11072-1				US-PATENT-APPL-SN-393583				US-PATENT-CLASS-427-423
				US-PATENT-APPL-SN-230613		N83-29590* #	c 33	NASA-CASE-GSC-12817-1				US-PATENT-CLASS-428-623
				US-PATENT-CASE-179-146-R				US-PATENT-APPL-SN-506477				US-PATENT-CLASS-428-633
				US-PATENT-CASE-179-179		N83-29591* #	c 33	NASA-CASE-LAR-13181-1				US-PATENT-CLASS-428-678
				US-PATENT-CASE-387-906				US-PATENT-APPL-SN-507623				US-PATENT-4,335,190
				US-PATENT-4,388,502		N83-29594* #	c 33	NASA-CASE-GSC-12818-1		N83-31895* #	c 31	NASA-CASE-MFS-25134-1
N83-28064* #	c 18			NASA-CASE-GSC-12551-1				US-PATENT-APPL-SN-511382				US-PATENT-APPL-SN-195226
				US-PATENT-APPL-SN-182881		N83-29595* #	c 33	NASA-CASE-NPO-16027-1				US-PATENT-CLASS-24-214
				US-PATENT-CLASS-244-169				US-PATENT-APPL-SN-500044				US-PATENT-CLASS-244-159
				US-PATENT-CLASS-244-170		N83-29625* #	c 34	NASA-CASE-LEW-12508-3		N83-31896* #	c 31	US-PATENT-4,381,583
				US-PATENT-4,386,750				US-PATENT-APPL-SN-235888				NASA-CASE-NPO-14596-3
N83-28076* #	c 23			NASA-CASE-ARC-11425-1				US-PATENT-CLASS-62-3				US-PATENT-APPL-SN-303871
				US-PATENT-APPL-SN-493884				US-PATENT-4,392,356				US-PATENT-CLASS-264-5
N83-28240* #	c 27			NASA-CASE-LAR-12775-1		N83-29650* #	c 35	NASA-CASE-MFS-25242-1				US-PATENT-CLASS-264-9
				US-PATENT-APPL-SN-308201				US-PATENT-APPL-SN-246773				US-PATENT-CLASS-425-8
				US-PATENT-CLASS-524-104				US-PATENT-CLASS-374-17				US-PATENT-CLASS-65-142
				US-PATENT-CLASS-524-173				US-PATENT-CLASS-73-883.11				US-PATENT-CLASS-65-214
				US-PATENT-CLASS-524-233				US-PATENT-4,389,804				US-PATENT-CLASS-65-22
				US-PATENT-CLASS-524-726		N83-29651* #	c 35	NASA-CASE-LAR-12531-1				US-PATENT-4,344,787
				US-PATENT-CLASS-525-181				US-PATENT-APPL-SN-282191		N83-31897* #	c 31	NASA-CASE-NPO-15251-1
				US-PATENT-CLASS-525-183				US-PATENT-CASE-368-10				US-PATENT-APPL-SN-229239
				US-PATENT-CLASS-525-184				US-PATENT-CASE-368-118				US-PATENT-CLASS-337-14
				US-PATENT-CLASS-525-474				US-PATENT-CASE-368-119				US-PATENT-CLASS-62-48
				US-PATENT-4,389,504				US-PATENT-CASE-368-120				US-PATENT-CLASS-62-514R
N83-28281* #	c 31			NASA-CASE-ARC-11363-1				US-PATENT-CASE-368-6				US-PATENT-4,368,680
				US-PATENT-APPL-SN-500046				US-PATENT-CASE-368-9		N83-31918* #	c 32	NASA-CASE-NPO-14525-2
N83-28319* #	c 33			NASA-CASE-MFS-25302-1				US-PATENT-4,392,749				US-PATENT-APPL-SN-165910
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				US-PATENT-CLASS-322-29				US-PATENT-APPL-SN-325082				US-PATENT-CLASS-343-9PS
				US-PATENT-CLASS-322-35				US-PATENT-CLASS-55-184				US-PATENT-CLASS-367-88
				US-PATENT-CLASS-322-47				US-PATENT-CLASS-55-202				US-PATENT-4,355,311
				US-PATENT-CLASS-322-95				US-PATENT-4,392,874		N83-31952* #	c 33	NASA-CASE-LEW-13429-1
				US-PATENT-4,388,585		N83-29680* #	c 36	NASA-CASE-MFS-25315-1				US-PATENT-APPL-SN-220212
N83-28329* #	c 33			NASA-CASE-MFS-25862				US-PATENT-APPL-SN-224232				US-PATENT-CLASS-315-3
				US-PATENT-APPL-SN-504345				US-PATENT-CASE-356-129				US-PATENT-CLASS-315-4
N83-28356* #	c 34			NASA-CASE-GSC-12553-1				US-PATENT-4,391,518				US-PATENT-CLASS-315-5
				US-PATENT-APPL-SN-106192		N83-29681* #	c 36	NASA-CASE-GSC-12809-2				US-PATENT-CLASS-315-5.35
				US-PATENT-CLASS-165-185				US-PATENT-APPL-SN-461020				US-PATENT-CLASS-315-5.38
				US-PATENT-CLASS-165-32		N83-29706* #	c 37	NASA-CASE-LAR-13009-1				US-PATENT-4,395,656
				US-PATENT-CLASS-165-76				US-PATENT-APPL-SN-495380		N83-31953* #	c 33	NASA-CASE-MFS-25215-1
				US-PATENT-4,388,965		N83-29707* #	c 37	NASA-CASE-MSC-20250-1				US-PATENT-APPL-SN-291131
N83-28450* #	c 37			NASA-CASE-LEW-13268-3				US-PATENT-APPL-SN-491113				US-PATENT-CLASS-318-800
				US-PATENT-APPL-SN-500045		N83-29783* #	c 43	NASA-CASE-LAR-13053-1				US-PATENT-CLASS-318-803
N83-28573* #	c 44			NASA-CASE-LAR-12495-1				US-PATENT-APPL-SN-508372				US-PATENT-CLASS-318-809
				US-PATENT-APPL-SN-263830		N83-29804* #	c 44	NASA-CASE-LEW-12950-2				US-PATENT-4,394,610
				US-PATENT-CLASS-310-11				US-PATENT-APPL-SN-507626		N83-31954* #	c 33	NASA-CASE-NPO-14940-1
				US-PATENT-4,388,542		N83-29805* #	c 44	NASA-CASE-LEW-13356-2				US-PATENT-APPL-SN-135038
N83-28574* #	c 44			NASA-CASE-GSC-12697-1				US-PATENT-APPL-SN-463440				US-PATENT-CLASS-324-466
				US-PATENT-APPL-SN-308204		N83-29806* #	c 44	NASA-CASE-NPO-16203-1				US-PATENT-CLASS-73-861.05
				US-PATENT-CLASS-308-10				US-PATENT-APPL-SN-493179				US-PATENT-4,338,568
				US-PATENT-CLASS-310-15		N83-29991* #	c 52	NASA-CASE-ARC-11264-2		N83-31993* #	c 34	NASA-CASE-NPO-15400-1
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				US-PATENT-CLASS-62-6				US-PATENT-APPL-SN-15828-1				US-PATENT-CLASS-250-573
				US-PATENT-4,389,849		N83-30222* #	c 74	US-PATENT-APPL-SN-411767				US-PATENT-CLASS-73-64.4
N83-28849* #	c 51			NASA-CASE-ARC-11322-1		N83-30268* #	c 78	NASA-CASE-GSC-12816-1				US-PATENT-4,391,129
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				US-PATENT-CLASS-435-38		N83-30651* #	c 27	NASA-CASE-LEW-13770-2				US-PATENT-CLASS-248-638
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				US-PATENT-CLASS-435-807		N83-30832* #	c 32	NASA-CASE-LEW-13893-1				US-PATENT-CLASS-62-514 R
				US-PATENT-4,386,157				US-PATENT-APPL-SN-387622				US-PATENT-4,394,819
N83-29032* #	c 74			NASA-CASE-KSC-11104-1		N83-31019* #	c 37	NASA-CASE-MFS-25907-1		N83-32067* #	c 37	NASA-CASE-GSC-12517-1
				US-PATENT-APPL-SN-153245				US-PATENT-APPL-SN-510137				US-PATENT-APPL-SN-214361
				US-PATENT-CLASS-350-96.18		N83-31603* #	c 07	NASA-CASE-LEW-14586-1				US-PATENT-CLASS-104-282
				US-PATENT-CLASS-455-612				US-PATENT-APPL-SN-163122				US-PATENT-CLASS-104-290
				US-PATENT-4,381,881				US-PATENT-CLASS-415-1				US-PATENT-CLASS-308-10
N83-29173* #	c 02			NASA-CASE-LAR-12979-1				US-PATENT-CLASS-415-175				US-PATENT-CLASS-310-12
				US-PATENT-APPL-SN-508371				US-PATENT-CLASS-415-178				US-PATENT-4,387,835
N83-29303* #	c 18			NASA-CASE-MFS-25403-1				US-PATENT-CLASS-415-47		N83-32081* #	c 39	NASA-CASE-LAR-12802-1
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				US-PATENT-CLASS-244-161				US-PATENT-APPL-SN-315587				US-PATENT-CLASS-73-818
				US-PATENT-CLASS-269-152				US-PATENT-CLASS-201-17				US-PATENT-CLASS-73-822
				US-PATENT-CLASS-269-242				US-PATENT-CLASS-44-1SR				US-PATENT-CLASS-73-856
				US-PATENT-CLASS-269-244				US-PATENT-4,391,609				US-PATENT-CLASS-73-860
				US-PATENT-CLASS-294-66R		N83-31795* #	c 26	NASA-CASE-LEW-13343				US-PATENT-4,393,716

N83-32175* #	c 44	NASA-CASE-LEW-12443-1 US-PATENT-APPL-SN-235797 US-PATENT-CLASS-310-306 US-PATENT-CLASS-4,373,142	N83-34041* #	c 27	US-PATENT-4,375,536 NASA-CASE-LAR-12858-1 US-PATENT-APPL-SN-407240 US-PATENT-CLASS-164-331.12 US-PATENT-CLASS-264-137 US-PATENT-CLASS-264-258 US-PATENT-CLASS-264-331.46 US-PATENT-CLASS-528-222 US-PATENT-CLASS-528-226 US-PATENT-4,398,021	US-PATENT-CLASS-310-332 US-PATENT-CLASS-310-800 US-PATENT-CLASS-428-294 US-PATENT-CLASS-428-421 US-PATENT-CLASS-428-422 US-PATENT-4,400,642		
N83-32176* #	c 44	NASA-CASE-LEW-13171-2 US-PATENT-APPL-SN-333537 US-PATENT-CLASS-29-623.5 US-PATENT-CLASS-429-144 US-PATENT-CLASS-429-251 US-PATENT-CLASS-429-254 US-PATENT-4,371,596	N83-34043* #	c 27	NASA-CASE-NPO-15202-1 US-PATENT-APPL-SN-233271 US-PATENT-CLASS-384-124 US-PATENT-CLASS-523-440 US-PATENT-CLASS-523-443 US-PATENT-4,395,503	N83-34934* #	c 05	NASA-CASE-LAR-13076-1 US-PATENT-APPL-SN-532342
N83-32177* #	c 44	NASA-CASE-LEW-13401-2 US-PATENT-APPL-SN-359388 US-PATENT-CLASS-136-249 US-PATENT-CLASS-357-30 US-PATENT-4,376,872	N83-34044* #	c 27	NASA-CASE-LAR-12894-1 US-PATENT-APPL-SN-516087	N83-35158* #	c 28	NASA-CASE-LAR-13014-1 US-PATENT-APPL-SN-527918
N83-32232* #	c 47	NASA-CASE-NPO-14938-1 US-PATENT-APPL-SN-163837 US-PATENT-CLASS-250-203R US-PATENT-CLASS-356-222 US-PATENT-4,355,896	N83-34073* #	c 31	NASA-CASE-ARC-11246-1 US-PATENT-APPL-SN-136660 US-PATENT-CLASS-156-264 US-PATENT-CLASS-156-344 US-PATENT-CLASS-156-59 US-PATENT-CLASS-273-240 US-PATENT-CLASS-434-403 US-PATENT-CLASS-434-88 US-PATENT-4,385,949	N83-35176* #	c 31	NASA-CASE-NPO-15070-1 US-PATENT-APPL-SN-403847 US-PATENT-CLASS-264-12 US-PATENT-CLASS-264-24 US-PATENT-CLASS-264-5 US-PATENT-CLASS-425-10 US-PATENT-CLASS-425-6 US-PATENT-CLASS-425-7 US-PATENT-CLASS-65-142 US-PATENT-CLASS-65-21.3 US-PATENT-CLASS-65-21.4 US-PATENT-CLASS-65-22 US-PATENT-4,400,191
N83-32342* #	c 60	NASA-CASE-NPO-15342-1 US-PATENT-APPL-SN-258623 US-PATENT-CLASS-364-200 US-PATENT-CLASS-364-900 US-PATENT-4,394,726	N83-34189* #	c 33	NASA-CASE-GSC-12566-1 US-PATENT-APPL-SN-276748 US-PATENT-CLASS-315-208 US-PATENT-CLASS-315-224 US-PATENT-CLASS-315-225 US-PATENT-CLASS-315-237 US-PATENT-CLASS-315-241R US-PATENT-CLASS-372-25 US-PATENT-4,398,129	N83-35177* #	c 31	NASA-CASE-LEW-13450-1 US-PATENT-APPL-SN-328760 US-PATENT-CLASS-427-243 US-PATENT-CLASS-427-247 US-PATENT-CLASS-427-34 US-PATENT-CLASS-427-423 US-PATENT-4,402,992
N83-32515* #	c 71	NASA-CASE-NPO-15453-1 US-PATENT-APPL-SN-314929 US-PATENT-CLASS-60-721 US-PATENT-CLASS-73-505 US-PATENT-4,393,708	N83-34190* #	c 33	NASA-CASE-MFS-25607-1 US-PATENT-APPL-SN-325868 US-PATENT-CLASS-361-90 US-PATENT-CLASS-318-729 US-PATENT-CLASS-318-798 US-PATENT-CLASS-318-806 US-PATENT-CLASS-361-100 US-PATENT-CLASS-363-54 US-PATENT-4,400,657	N83-35178* #	c 31	NASA-CASE-LAR-13098-1 US-PATENT-APPL-SN-530339
N83-32516* #	c 71	NASA-CASE-NPO-15522-1 US-PATENT-APPL-SN-303672 US-PATENT-CLASS-60-721 US-PATENT-CLASS-73-505 US-PATENT-4,393,706	N83-34191* #	c 33	NASA-CASE-GSC-12646-1 US-PATENT-APPL-SN-284290 US-PATENT-CLASS-330-289 US-PATENT-CLASS-330-310 US-PATENT-4,401,953	N83-35227* #	c 33	NASA-CASE-MFS-25209-1 US-PATENT-APPL-SN-291132 US-PATENT-CLASS-318-685 US-PATENT-CLASS-318-798 US-PATENT-CLASS-318-806 US-PATENT-4,401,934
N83-32577* #	c 74	NASA-CASE-GSC-12614-1 US-PATENT-APPL-SN-195227 US-PATENT-CLASS-356-353 US-PATENT-CLASS-356-363 US-PATENT-4,395,123	N83-34221* #	c 34	NASA-CASE-LAR-12393-1 US-PATENT-APPL-SN-145208 US-PATENT-CLASS-165-27 US-PATENT-CLASS-165-12 US-PATENT-CLASS-165-61 US-PATENT-CLASS-165-80E US-PATENT-CLASS-374-46 US-PATENT-CLASS-62-514R US-PATENT-CLASS-62-62 US-PATENT-4,346,754	N83-35228* #	c 33	NASA-CASE-GSC-12804-1 US-PATENT-APPL-SN-529803
N83-33137* #	c 36	NASA-CASE-NPO-15790-1 US-PATENT-APPL-SN-423016	N83-34272* #	c 35	NASA-CASE-ARC-11317-1 US-PATENT-APPL-SN-229231 US-PATENT-CLASS-340-518 US-PATENT-CLASS-340-568 US-PATENT-4,374,378	N83-35229* #	c 33	NASA-CASE-MFS-25750-1 US-PATENT-APPL-SN-530185
N83-33882* #	c 06	NASA-CASE-FRC-11043-1 US-PATENT-APPL-SN-242790 US-PATENT-CLASS-33-322 US-PATENT-CLASS-74-5.34 US-PATENT-4,387,513	N83-34273* #	c 35	NASA-CASE-LAR-12968-1 US-PATENT-APPL-SN-523560	N83-35307* #	c 34	NASA-CASE-GSC-12812-1 US-PATENT-APPL-SN-434674 US-PATENT-CLASS-165-104.26 US-PATENT-CLASS-165-32 US-PATENT-4,402,358
N83-33884* #	c 07	NASA-CASE-ARC-10812-1 US-PATENT-APPL-SN-657903 US-PATENT-CLASS-181-213 US-PATENT-CLASS-239-265.17 US-PATENT-CLASS-60-262 US-PATENT-CLASS-60-269 US-PATENT-CLASS-60-271 US-PATENT-4,372,110	N83-34304* #	c 36	NASA-CASE-ARC-11312-1 US-PATENT-APPL-SN-234224 US-PATENT-CLASS-356-1 US-PATENT-CLASS-356-4 US-PATENT-CLASS-358-104 US-PATENT-CLASS-358-109 US-PATENT-CLASS-434-38 US-PATENT-CLASS-434-4 US-PATENT-4,391,514	N83-35338* #	c 35	NASA-CASE-LEW-13934-1 US-PATENT-APPL-SN-212949 US-PATENT-CLASS-228-103 US-PATENT-CLASS-228-193 US-PATENT-CLASS-228-263.18 US-PATENT-CLASS-415-118 US-PATENT-4,402,447
N83-33950* #	c 24	NASA-CASE-NPO-14987-1 US-PATENT-APPL-SN-164-584 US-PATENT-CLASS-427-215 US-PATENT-CLASS-427-241 US-PATENT-CLASS-428-367 US-PATENT-CLASS-428-375 US-PATENT-CLASS-428-392 US-PATENT-CLASS-428-902 US-PATENT-CLASS-428-903 US-PATENT-4,359,503	N83-34448* #	c 44	NASA-CASE-ARC-11184-1 US-PATENT-APPL-SN-308007 US-PATENT-CLASS-350-166 US-PATENT-CLASS-428-312.8 US-PATENT-CLASS-428-325 US-PATENT-CLASS-428-427 US-PATENT-CLASS-428-428 US-PATENT-4,381,333	N83-35350* #	c 36	NASA-CASE-NPO-15201-1 US-PATENT-APPL-SN-246778 US-PATENT-CLASS-330-4 US-PATENT-CLASS-332-7.5 US-PATENT-CLASS-333-24.2 US-PATENT-4,399,415
N83-33977* #	c 25	NASA-CASE-ARC-11328-1 US-PATENT-APPL-SN-178192 US-PATENT-CLASS-252-5 US-PATENT-CLASS-423-419P US-PATENT-CLASS-423-600 US-PATENT-CLASS-424-156 US-PATENT-4,358,157	N83-34449* #	c 44	NASA-CASE-LAR-12719-1 US-PATENT-APPL-SN-367134 US-PATENT-CLASS-126-901 US-PATENT-CLASS-204-33 US-PATENT-CLASS-204-35N US-PATENT-4,397,716	N83-35781* #	c 71	NASA-CASE-NPO-15334-1 US-PATENT-APPL-SN-341406 US-PATENT-CLASS-210-748 US-PATENT-CLASS-252-361 US-PATENT-CLASS-368-114 US-PATENT-CLASS-55-15 US-PATENT-CLASS-55-277 US-PATENT-CLASS-55-38 US-PATENT-CLASS-55-52 US-PATENT-CLASS-65-134 US-PATENT-4,388,925
N83-34014* #	c 26	NASA-CASE-LEW-13324-2 US-PATENT-APPL-SN-523297	N83-34796* #	c 76	NASA-CASE-LEW-12582-1 US-PATENT-APPL-SN-397281	N83-35888* #	c 76	NASA-CASE-NPO-15530-1 US-PATENT-APPL-SN-384092 US-PATENT-CLASS-156-DIG.6 US-PATENT-CLASS-156-DIG.73 US-PATENT-CLASS-156-608 US-PATENT-4,401,505
N83-34039* #	c 27	NASA-CASE-GSC-12888-1 US-PATENT-APPL-SN-293412 US-PATENT-CLASS-427-322 US-PATENT-CLASS-427-340 US-PATENT-CLASS-427-352 US-PATENT-CLASS-427-400 US-PATENT-CLASS-427-407.1 US-PATENT-4,362,769	N83-34797* #	c 76	NASA-CASE-LEW-12582-1 US-PATENT-APPL-SN-397281	N83-35982* #	c 01	NASA-CASE-LAR-12824-1 US-PATENT-APPL-SN-259209 US-PATENT-CLASS-102-378 US-PATENT-CLASS-244-137P US-PATENT-CLASS-89-1B US-PATENT-4,407,468
N83-34040* #	c 27	NASA-CASE-LAR-12838-1 US-PATENT-APPL-SN-320621 US-PATENT-CLASS-526-259 US-PATENT-CLASS-526-285 US-PATENT-CLASS-528-12 US-PATENT-CLASS-528-125 US-PATENT-CLASS-528-126 US-PATENT-CLASS-528-128 US-PATENT-CLASS-528-220 US-PATENT-CLASS-528-222 US-PATENT-CLASS-528-228 US-PATENT-CLASS-528-229 US-PATENT-CLASS-528-38	N83-36118* #	c 25	NASA-CASE-ARC-11252-1 US-PATENT-APPL-SN-317977 US-PATENT-CLASS-169-47 US-PATENT-CLASS-252-2 US-PATENT-CLASS-252-5 US-PATENT-4,406,797	N83-36029* #	c 07	NASA-CASE-LEW-13142-1 US-PATENT-APPL-SN-132364 US-PATENT-CLASS-60-39.07 US-PATENT-4,404,793

N83-36121* #	c 25	US-PATENT-APPL-SN-526740 NASA-CASE-NPO-15907-1 US-PATENT-APPL-SN-526832	US-PATENT-CLASS-277-124 US-PATENT-CLASS-277-184 US-PATENT-CLASS-277-177	N84-12448* #	c 35	NASA-CASE-WLP-10055-2 US-PATENT-APPL-SN-526770		
N83-36122* #	c 25	NASA-CASE-NPO-15924-1 US-PATENT-APPL-SN-526768	US-PATENT-CLASS-277-190 US-PATENT-4,410,189	N84-12463* #	c 36	NASA-CASE-NPO-16112-1 US-PATENT-APPL-SN-542232		
N83-36220* #	c 27	NASA-CASE-MFS-25436-1 US-PATENT-APPL-SN-280151 US-PATENT-CLASS-156-DIG.73 US-PATENT-CLASS-156-DIG.89 US-PATENT-CLASS-156-600 US-PATENT-CLASS-156-610 US-PATENT-CLASS-165-2 US-PATENT-CLASS-165-58 US-PATENT-CLASS-219-343 US-PATENT-CLASS-219-354 US-PATENT-CLASS-219-390 US-PATENT-CLASS-219-411 US-PATENT-CLASS-350-316 US-PATENT-4,408,658	N84-11501* #	c 37	NASA-CASE-MFS-25949-1 US-PATENT-APPL-SN-538063	N84-12491* #	c 37	NASA-CASE-GSC-12619-1 US-PATENT-APPL-SN-225499 US-PATENT-CLASS-101-407BP US-PATENT-CLASS-269-3 US-PATENT-4,393,777
N83-36355* #	c 33	NASA-CASE-GSC-12630-1 US-PATENT-APPL-SN-308009 US-PATENT-CLASS-343-100AP US-PATENT-CLASS-343-840 US-PATENT-4,407,001	N84-11744* #	c 52	NASA-CASE-MFS-25740-1 US-PATENT-APPL-SN-371352 US-PATENT-CLASS-128-DIG.25 US-PATENT-CLASS-128-1R US-PATENT-CLASS-128-348 US-PATENT-4,408,597	N84-12492* #	c 37	NASA-CASE-GSC-12622-1 US-PATENT-APPL-SN-243684 US-PATENT-CLASS-308-2A US-PATENT-4,405,184
N83-36356* #	c 33	NASA-CASE-KSC-11170-1 US-PATENT-APPL-SN-281288 US-PATENT-CLASS-330-110 US-PATENT-CLASS-330-282 US-PATENT-4,406,989	N84-11758* #	c 54	NASA-CASE-MSC-18223-2 US-PATENT-APPL-SN-219681 US-PATENT-APPL-SN-368187 US-PATENT-CLASS-604-368 US-PATENT-CLASS-604-378 US-PATENT-CLASS-604-396 US-PATENT-4,338,371 US-PATENT-4,411,660	N84-12493* #	c 37	NASA-CASE-LAR-12923-1 US-PATENT-APPL-SN-383063 US-PATENT-CLASS-416-117 US-PATENT-CLASS-416-132B US-PATENT-4,415,311
N83-36357* #	c 33	NASA-CASE-LAR-12654-1 US-PATENT-APPL-SN-234225 US-PATENT-CLASS-368-184 US-PATENT-CLASS-368-200 US-PATENT-CLASS-368-201 US-PATENT-4,407,589	N84-11761* #	c 54	NASA-CASE-MFS-25908-1 US-PATENT-APPL-SN-537757	N84-12635* #	c 44	NASA-CASE-NPO-15903-1 US-PATENT-APPL-SN-547171
N83-36482* #	c 37	NASA-CASE-MSC-18791-1 US-PATENT-APPL-SN-248746 US-PATENT-CLASS-29-446 US-PATENT-CLASS-73-862.54 US-PATENT-CLASS-81-55 US-PATENT-CLASS-81-57.38 US-PATENT-4,407,165	N84-11820* #	c 74	NASA-CASE-GSC-12640-1 US-PATENT-APPL-SN-267178 US-PATENT-CLASS-250-363R US-PATENT-CLASS-250-363S US-PATENT-CLASS-250-368 US-PATENT-CLASS-378-2 US-PATENT-4,404,469	N84-12654* #	c 45	NASA-CASE-NSTL-10 US-PATENT-APPL-SN-335038 US-PATENT-CLASS-210-151 US-PATENT-CLASS-210-602 US-PATENT-CLASS-210-605 US-PATENT-CLASS-210-617 US-PATENT-CLASS-47-58 US-PATENT-4,415,450
N83-36483* #	c 37	NASA-CASE-MSC-18807-1 US-PATENT-APPL-SN-266688 US-PATENT-CLASS-123-197R US-PATENT-CLASS-123-78E US-PATENT-4,406,256	N84-11921* #	c 74	NASA-CASE-NPO-15375-1 US-PATENT-APPL-SN-210405 US-PATENT-CLASS-250-227 US-PATENT-CLASS-3-1.1 US-PATENT-CLASS-350-96.10 US-PATENT-CLASS-350-96.15 US-PATENT-CLASS-73-432T US-PATENT-4,405,187	N84-12968* #	c 76	NASA-CASE-NPO-15811-1 US-PATENT-APPL-SN-547175
N83-36484* #	c 37	NASA-CASE-NPO-15482-1 US-PATENT-APPL-SN-526739	N84-12092* #	c 02	NASA-CASE-LAR-13255-1 US-PATENT-APPL-SN-550681	N84-14132* #	c 04	NASA-CASE-LAR-12638-1 US-PATENT-APPL-SN-387187 US-PATENT-CLASS-33-DIG.3 US-PATENT-CLASS-33-348 US-PATENT-CLASS-33-356 US-PATENT-CLASS-33-361 US-PATENT-4,418,480
N83-36485* #	c 37	NASA-CASE-NPO-15960-1 NASA-CASE-NPO-16120-1 US-PATENT-APPL-SN-527613	N84-12151* #	c 04	NASA-CASE-NPO-16171-1-CU US-PATENT-APPL-SN-551536	N84-14322* #	c 27	NASA-CASE-ARC-11400-1 US-PATENT-APPL-SN-441899 US-PATENT-CLASS-428-246 US-PATENT-CLASS-428-260 US-PATENT-CLASS-428-367 US-PATENT-CLASS-428-408 US-PATENT-CLASS-428-473.5 US-PATENT-CLASS-428-902 US-PATENT-CLASS-428-920 US-PATENT-CLASS-524-494 US-PATENT-CLASS-524-496 US-PATENT-CLASS-524-500 US-PATENT-CLASS-524-530 US-PATENT-CLASS-524-532 US-PATENT-CLASS-525-282 US-PATENT-CLASS-525-287 US-PATENT-4,421,820
N83-36846* #	c 71	NASA-CASE-NPO-15435-1 US-PATENT-APPL-SN-272837 US-PATENT-CLASS-308-10 US-PATENT-CLASS-73-505 US-PATENT-4,402,221	N84-12154* #	c 05	NASA-CASE-LAR-12615-1 US-PATENT-APPL-SN-263829 US-PATENT-CLASS-244-13 US-PATENT-CLASS-244-45R US-PATENT-CLASS-244-53R US-PATENT-CLASS-244-55 US-PATENT-CLASS-244-91 US-PATENT-4,415,133	N84-14323* #	c 27	NASA-CASE-LAR-12881-1 US-PATENT-APPL-SN-381215 US-PATENT-CLASS-206-447 US-PATENT-CLASS-206-582 US-PATENT-CLASS-428-202 US-PATENT-CLASS-428-347 US-PATENT-CLASS-428-40 US-PATENT-CLASS-428-78 US-PATENT-4,420,518
N83-36847* #	c 71	NASA-CASE-NPO-16022-1 US-PATENT-APPL-SN-526750	N84-12189* #	c 09	NASA-CASE-ARC-11426-1 US-PATENT-APPL-SN-526741	N84-14324* #	c 27	NASA-CASE-MSC-18382-2 US-PATENT-APPL-SN-241155 US-PATENT-CLASS-524-371 US-PATENT-4,395,511
N83-36898* #	c 74	NASA-CASE-GSC-12683-1 US-PATENT-APPL-SN-333535 US-PATENT-CLASS-350-173 US-PATENT-CLASS-350-445 US-PATENT-4,407,563	N84-12282* #	c 25	NASA-CASE-NPO-15458-1 US-PATENT-APPL-SN-376306 US-PATENT-CLASS-204-DIG.3 US-PATENT-CLASS-204-129 US-PATENT-CLASS-204-242 US-PATENT-CLASS-204-278 US-PATENT-CLASS-204-290R US-PATENT-CLASS-427-443.2 US-PATENT-CLASS-429-111 US-PATENT-4,414,080	N84-14421* #	c 33	NASA-CASE-GSC-12650-1 US-PATENT-APPL-SN-301077 US-PATENT-CLASS-330-107 US-PATENT-CLASS-330-109 US-PATENT-4,417,215
N84-11136* #	c 02	NASA-CASE-LAR-12843-1 US-PATENT-APPL-SN-392096 US-PATENT-CLASS-244-35A US-PATENT-CLASS-244-35R US-PATENT-CLASS-416-223R US-PATENT-CLASS-416-242 US-PATENT-4,412,684	N84-12289* #	c 26	NASA-CASE-NPO-15928-1 US-PATENT-APPL-SN-537616	N84-14422* #	c 33	NASA-CASE-LEW-13286-1 US-PATENT-APPL-SN-272406 US-PATENT-CLASS-252-182.1 US-PATENT-CLASS-429-206 US-PATENT-CLASS-429-229 US-PATENT-4,418,130
N84-11213* #	c 24	NASA-CASE-ARC-11418-1 US-PATENT-APPL-SN-452484 US-PATENT-CLASS-523-435 US-PATENT-CLASS-523-456 US-PATENT-CLASS-528-110 US-PATENT-CLASS-528-381 US-PATENT-4,410,682	N84-12313* #	c 27	NASA-CASE-ARC-11506-1 US-PATENT-APPL-SN-522629	N84-14423* #	c 33	NASA-CASE-MFS-25211-2 US-PATENT-APPL-SN-432057 US-PATENT-CLASS-339-258RR US-PATENT-CLASS-339-262RR US-PATENT-CLASS-339-64M US-PATENT-4,421,371
N84-11214* #	c 24	NASA-CASE-LAR-12807-1 US-PATENT-APPL-SN-280155 US-PATENT-CLASS-228-157 US-PATENT-CLASS-228-181 US-PATENT-CLASS-228-212 US-PATENT-CLASS-244-119 US-PATENT-CLASS-244-123 US-PATENT-CLASS-428-593 US-PATENT-CLASS-52-806 US-PATENT-CLASS-52-808 US-PATENT-4,411,380	N84-12406* #	c 34	NASA-CASE-MFS-25631-1 US-PATENT-APPL-SN-308203 US-PATENT-CLASS-239-426 US-PATENT-4,413,784	N84-14424* #	c 33	NASA-CASE-MFS-25477-1 US-PATENT-APPL-SN-243683 US-PATENT-APPL-SN-297524 US-PATENT-APPL-SN-350472 US-PATENT-CLASS-318-729 US-PATENT-CLASS-318-798 US-PATENT-CLASS-318-806 US-PATENT-4,417,190
N84-11297* #	c 27	NASA-CASE-MFS-25910-1 US-PATENT-APPL-SN-548582	N84-12443* #	c 35	NASA-CASE-FRC-11068-1 US-PATENT-APPL-SN-322314 US-PATENT-CLASS-156-215 US-PATENT-CLASS-156-230 US-PATENT-CLASS-156-235 US-PATENT-CLASS-156-294 US-PATENT-CLASS-156-391 US-PATENT-CLASS-156-423 US-PATENT-CLASS-156-540 US-PATENT-CLASS-156-71 US-PATENT-CLASS-338-2 US-PATENT-4,407,686	N84-14461* #	c 34	NASA-CASE-GSC-12771-1 US-PATENT-APPL-SN-434672 US-PATENT-CLASS-165-32 US-PATENT-CLASS-165-41 US-PATENT-CLASS-165-98
N84-11389* #	c 33	NASA-CASE-LEW-13922-1 US-PATENT-APPL-SN-537614	N84-12444* #	c 35	NASA-CASE-LAR-12708-1 US-PATENT-APPL-SN-210488 US-PATENT-CLASS-324-250 US-PATENT-CLASS-328-230 US-PATENT-CLASS-372-74 US-PATENT-4,414,509			
N84-11497* #	c 37	NASA-CASE-MFS-25678-1 US-PATENT-APPL-SN-378533 US-PATENT-CLASS-277-116.6	N84-12445* #	c 35	NASA-CASE-LAR-12882-1 US-PATENT-APPL-SN-267179 US-PATENT-CLASS-384-415 US-PATENT-CLASS-73-646 US-PATENT-CLASS-73-658 US-PATENT-4,413,522			
			N84-12447* #	c 35	NASA-CASE-LEW-13914-1 US-PATENT-APPL-SN-537615			



N84-14491* #	c 35	US-PATENT-4,420,035 NASA-CASE-LAR-12686-1 US-PATENT-APPL-SN-249304 US-PATENT-CLASS-364-557 US-PATENT-CLASS-364-558 US-PATENT-CLASS-364-571 US-PATENT-CLASS-372-714 US-PATENT-4,399,515	N84-16454* #	c 33	NASA-CASE-GSC-12645-1 US-PATENT-APPL-SN-284314 US-PATENT-CLASS-324-78R US-PATENT-CLASS-324-83A US-PATENT-CLASS-324-83R US-PATENT-CLASS-328-133 US-PATENT-CLASS-330-289 US-PATENT-4,425,543	US-PATENT-CLASS-55-139 US-PATENT-CLASS-55-145 US-PATENT-CLASS-55-2 US-PATENT-CLASS-55-270 US-PATENT-CLASS-55-283 US-PATENT-CLASS-55-291 US-PATENT-CLASS-55-466 US-PATENT-CLASS-55-6 US-PATENT-CLASS-55-96 US-PATENT-CLASS-60-275 US-PATENT-CLASS-60-303 US-PATENT-CLASS-60-311 US-PATENT-4,378,637		
N84-14509* #	c 36	NASA-CASE-GSC-12565-1 US-PATENT-APPL-SN-270763 US-PATENT-CLASS-350-299 US-PATENT-CLASS-356-345 US-PATENT-CLASS-372-100 US-PATENT-CLASS-372-108 US-PATENT-CLASS-372-93 US-PATENT-CLASS-372-94 US-PATENT-CLASS-372-98 US-PATENT-4,420,836	N84-16455* #	c 33	NASA-CASE-MFS-25616-1 US-PATENT-APPL-SN-325932 US-PATENT-CLASS-318-799 US-PATENT-CLASS-323-243 US-PATENT-CLASS-323-246 US-PATENT-4,426,614	N84-20495* #	c 02	NASA-CASE-LAR-13019-1 US-PATENT-APPL-SN-576308
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		US-PATENT-APPL-SN-641146				US-PATENT-4,043,668				US-PATENT-CLASS-156-DIG.88
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		US-PATENT-APPL-SN-452466								

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US-PATENT-CLASS-156-608  
US-PATENT-CLASS-156-617-SP  
US-PATENT-CLASS-156-617-V  
US-PATENT-CLASS-422-246  
US-PATENT-CLASS-422-249  
US-PATENT-4,469,552

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